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ABSTRACT

This is a report on the content, practices, and patterns of undergraduate education at New York University and elsewhere and includes proposals for reform that respond to the widely felt need for education more effectively related to the intellectual and social conditions of the 1970s. (HS)

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# Report of the Commission on Undergraduate Education

HE002 644

New York University
1971

# About New York University

New York University is a private university, located in New York City. It currently enrolls more than 32,000 students in degree-conferring divisions; of these, approximately 11,500 are enrolled in the seven undergraduate divisions. They come from 50 states and more than 100 countries.

Founded in 1831, the University today has 15 colleges and schools at six major centers in Manhattan and the Bronx. In addition, it owns and operates New York's Town Hall as its midtown cultural arts center. Some of the University's research facilities, including the Institute of Environmental Medicine, are located in Sterling Forest, near Tuxedo, New York.

A full- and part-time faculty of over 6,100 men and women teach more than 2,500 courses leading to 35 different degrees.

The University is an independent institution operating under a Board of Trustees. It derives its income from tuition, endowment, grants from private foundations and government, and gifts from friends, alumni, corporations, and other philanthropic sources.

## THE UNDERGRADUATE DIVISIONS OF NEW YORK UNIVERSITY

| | *Enrollment 1970-1971* |
|---|---|
| *At Washington Square* | |
| School of the Arts | 573 |
| College of Business and Public Administration | 1,387 |
| School of Continuing Education | |
| Associate Degree Programs | 496 |
| School of Education | 2,137 |
| Washington Square College of Arts and Science | 3,443 |
| *At University Heights* | |
| School of Engineering and Science | |
| Day | 901 |
| Evening | 399 |
| University College of Arts and Science | 2,245 |
| Total | 11,581 |

ED057724

# Report of the Commission on Undergraduate Education

New York University
1971

# Preface

## Origins and Composition of the Commission

The New York University Commission on Undergraduate Education was created by the University Senate on the recommendation of its Educational Policies Committee in April 1970 to report by the end of the following academic year on the "content, practices, and patterns" of undergraduate education in the University. At its inauguration President Hester said, "The mandate of this Commission is to examine all proposals for reform advanced here and elsewhere, to devise proposals of its own, and to present to the University possibilities for changes that respond to the widely felt need for education more effectively related to the intellectual and social conditions of our time." The Commission was composed of fourteen faculty members and seven students from the seven undergraduate divisions of the University.

## The Approach to the Task

The Commission approached its work through a committee organization. The general areas of concern in undergraduate education were identified, and small working groups developed these subjects through investigation and discussion. An editorial committee and the whole Commission focused these deliberations into the general Report submitted here.

The Commission undertook a program of external research, including collection of materials from other institutions, visitations, and the development of a library and research collection. At the same time, internal research was conducted on the current state of undergraduate policies and programs at the University. These aspects of the Commission's work have produced an extremely useful research collection on undergraduate education that is already assisting faculty members and students to develop and assess projects of their own. The Commission hopes that this resource will be continued and developed.

In the course of its work, the Commission members and staff interviewed administrators, outside experts, various committees and commissions, individual faculty members and students, and arranged a series of open meetings with faculties and with student groups. Members of the Commission have participated in a large number of such meetings.

To supplement its impressions, the Commission undertook a survey of undergraduate student opinion at the University. The questionnaire benefited from consultation with Assistant Professor Joseph B. Giacquinta of the School of Education and the survey techniques developed and administered by Professor Richard P. Brief and Assistant Professor Aaron Tenenbein of the College of Business and Public Administration. The Commission is extremely grateful to all of them. The survey of student opinion was undertaken for two reasons: *(a)* because the size of our student body made it difficult to get a wide reading on student attitudes and reactions, and *(b)* because the Commission wished to demonstrate that such scientific sampling was relatively easy and inexpensive and could yield helpful, indeed necessary, information. The Commission hopes, as with its beginnings in research resources, that the student survey will encourage further work in this area. The findings of this opinion survey have been utilized in the Report, and the general results and an explanation of how the sample was conducted can be found in Appendix I.

## Acknowledgments

An enormous number of people have willingly and thoughtfully assisted the deliberations of the Commission. President James M. Hester, Chancellor Allan M. Cartter, and Vice Chancellor Eleazer Bromberg have made themselves readily available to the Commission, and other members of the administration have been extremely helpful, especially Raymond J. Brienza, Director of Financial Aid; Roscoe C. Brown, Jr., Director of the Institute of Afro-American Affairs; Arnold L. Goren, Assistant Chancellor; Myron F. Pollack, Head of the Division of Interdisciplinary Studies, and Special Consultant to the Commission; Herbert B. Livesey, Director of Admissions; and Ralph B. von Guerard, Registrar. The deans of the various undergraduate, graduate, and professional programs were very cooperative, and their vision and energies helped to instill a sense of enthusiasm and confidence in the members of the Commission. The Commission is also grateful to the staffs and advisement officers of the various schools for their help. The Commission acknowledges the assistance of many individual faculty members and students who were willing to share their thoughts and concerns with us, to join us in meetings, to answer questions, and to participate in the survey. At the same time, Commission members have been graciously received and assisted by outside experts who gave of their time and expertise. Members of the State Education Department for Higher Education, faculty members, students, and administrators at universities and colleges, large and small, foundation representatives, and private citizens have met with the Commission and enriched its perspective throughout this past year.

Finally, the Chairman of the Commission acknowledges and thanks the members of the Commission and its staff for their dedication, their energy, their enthusiasm, and their friendship. The members of the staff: Mr. Burneson, Mrs. Lewis, Mrs. McDonough, and the student research assistants have performed their duties in an outstanding manner and greatly facilitated the work of the Commission. The members of the Commission have earned the Chairman's unending praise; surely this has been one of the most dedicated and hardworking commissions in the University's history.

May 13, 1971
Office of the Deputy Vice Chancellor
for Academic Affairs
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# Introduction

The demands on undergraduate education in America have undergone substantial change in the past forty years, the extent of which is largely unrecognized in the nation's institutions of higher learning. Colleges and universities in the generation before World War II were on the periphery of American society. Autonomous enough to establish their own relationships with the society around them, they responded to a specific segment of highly selected students and proceeded to train them for established positions in the society for which a college education was a social or intellectual prerequisite. Higher education remained the prerogative of a few, and institutions of higher learning were in command of the criteria for the selection of these few and of the professions into which they entered.

Increasingly since the 1930s, however, the relationship of universities and colleges to society in general has changed enormously. Society has now moved toward acceptance of the notion of higher education for everyone who desires it, and the former university role of research and professional training for society has expanded to include a more general educational mission. Modern technology has limited the job opportunities for the untrained and demands training for ever widening segments of the population. State and federal aid has become a virtual necessity for private institutions if they are to meet this challenge; indeed, it is necessary for their survival. Higher education has moved from the periphery of American society to its very center; all the forces of social change have now come to bear on its institutions.

An effective process of response is urgent and necessary. Educational institutions have emphasized the need for continued examination of social change in their classrooms. Yet, they have tended to address themselves to their own problems with fevered efforts of short duration followed by long periods of quiescence. By the time their analysis of specific difficulties is complete, society has moved on to new and pressing issues.

John Gardner's thesis is particularly appropriate to those of us in higher education:

> Every individual, organization, and society must mature, but much depends on how this maturing takes place. A society whose maturing consists simply of acquiring more firmly established ways of doing things is headed for the graveyard—even if it learns to do these things with greater and greater skill. *In the ever-renewing society what matures is a system or framework within which continuous innovation, renewal and rebirth can occur.*
>
> Our thinking about growth and decay is dominated by the image of a single life-span, animal or vegetable. Seedling, full flower, and death. "The

flower that once has blown forever dies." But for an ever-renewing society the appropriate image is a total garden, a balanced aquarium or other ecological system. Some things are being born, other things are flourishing, still other things are dying—but the system lives on.

Over the centuries the classic question of social reform has been, "How can we cure this or that specifiable ill?" Now we must ask another kind of question: "How can we design a system that will continuously reform (i.e., renew) itself, beginning with presently specifiable ills and moving on to ills that we cannot now foresee?"*

Reflecting on this, the Commission on Undergraduate Education has concerned itself not simply with recommendations responding to current problems but also with recommendations of ways in which the University can ready itself for examination of changes yet to come. Now is the time for self-renewal in undergraduate education. Such self-renewal must be a shared endeavor by all the parts of the University community. It cannot be left to commissions or delegated to administrators, for change in a complex institution characterized by shared authority can only be achieved by shared responsibility.

Private higher education in the United States today is in the midst of a crisis of confidence compounded with financial, demographic, educational, and emotional concerns.

- The financial situation of private colleges and universities demands, for the first time since World War II, a constant and painful reappraisal of all parts of the educational process in order to determine what will and must survive. Panic can result as parts of the educational structure are pruned away without clear guidelines to the significance of those parts to the whole and without mechanisms to develop new and viable replacements.

- Private institutions, emerging from a generation in which success was measured by rising numbers of applications each year, can no longer depend on a guaranteed flow of students. A number of factors, including demographic ones, have created a situation in which students by their own choices will determine the survival of private institutions. The student pool from which private universities draw is being widened in character by the movement toward universal higher education but is being constricted in numbers by population fluctuation, by rising educational costs, and by competition from expanded public university systems. Private colleges and universities have long presided over a traditional enterprise, only to discover in the past few years that they must join the ranks of entrepreneurs and build a better one.

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*John W. Gardner, *Self-Renewal: The Individual and the Innovative Society* (New York: Harper & Row, 1965), p. 5.

- Educational programs and curriculum development have not kept pace with the changing needs, aspirations, and pressures experienced by undergraduate students. The needs of students for a stimulating learning environment have risen substantially since the days of very selective college enrollments, and institutions of higher learning must address themselves to these needs. Traditional institutions, accustomed to dealing with a presumably stable student body heading along well-determined educational paths, have felt a crisis of confidence in their abilities to meet the pressures of the new age, which include: student concerns for the "relevance" to them of their education, the limitations on traditional employment opportunities and professions that colleges have considered standard routes for their students, the enormous frustrations involved in gaining professional school admissions, and evidence of a growing student disposition to avoid graduate and professional education at the end of their college years.

- During much of this last decade, higher education in general and undergraduate education in particular have paid enormous attention to accelerating financial problems and to questions of institutional governance, but rarely to educational policy. The Commission on the Future of the College at Princeton University summed up the consequences: "As a result, the educational program is now an uneasy amalgam of historical legacy and ad hoc improvisation."* Undergraduate institutions have produced no philosophical basis or renewal machinery for the educational tasks they have acquired and consequently have responded with improvisations that lack coherence and confidence. These conditions have contributed in part to student unrest, the transfer syndrome, high dropout rates, and the "tuning out" of students.

Such improvisation will not do for much longer. As Kurt Vonnegut has observed, we become what we pretend to be, and institutions of higher education give evidence of pretending to be confused, uncertain, and random. Students need to know the goals and purposes for which educational programs exist if they are to choose rationally among institutions and if they are to generate real commitments to learning. Institutions themselves must determine their roles if they are to provide appropriate curricular routes to those goals, and they must provide appropriate mechanisms to test and develop these alternative modes of education.

The problems of undergraduate education in the nation appear in microcosm at New York University. This is both a difficulty and an opportunity. The problems of any particular educational institution will

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*[*Proposal for a Commission on the Future of the College*, Princeton University, 1971, p. 2.

be found among us, usually in heightened form. If the challenge of self-renewal of undergraduate education cannot be addressed here in the urban center of the nation with its tremendous resources and substantial numbers of undergraduate students, then it will not be approached anywhere except peripherally and weakly. The response to self-renewal in this University has national as well as local significance; thus the battle for the survival and perfection of private undergraduate education is doubly worth the effort.

The Commission began its deliberations with its own crisis of confidence. Each member of the Commission had his or her own sense of the immensely difficult factors at work in undergraduate education and each was immersed in some particular aspect of the whole. There was a basic questioning of whether an overview of undergraduate education was possible, and whether such an overview, even if it were produced, was applicable to this University. The members of the Commission were all experienced committee participants in their schools and colleges, and such experience with the working of committees had produced a hard-headed attitude toward the possibility of "good works." Through a long and deliberative process the Commission has moved from skepticism to confidence, from insularity to community, and from diffidence to commitment. The Commission members, both students and faculty, are no different in attitudes than the student body and faculty they represent. The Commission believes that confidence, community, and commitment for effective education can be generated wherever students and faculty are willing to share the strains and the rewards of the process.

In its early discussions the Commission examined systems that gave to a few innovative programs of the University the responsibility for meeting the new challenges to undergraduate education. Such devices were thought to provide an opportunity to respond to current challenges in circumstances freed from traditional restraints and, through example, to excite review in other parts of the University. The Commission subsequently determined that to delegate the responsibility for renewal in undergraduate education solely to new programs in the University was not only divisive but also ignored the crucial need for every part of the University to meet its own challenges. The Commission would have failed, in the words of John Gardner, to incorporate "a system that will continually reform itself."

The Commission therefore urges that *all* segments of the University community assume responsibilities for self-definition and renewal, and that the new structures described in this Report be utilized as vehicles to allow alternative goals and techniques to be tested. Self-renewal becomes the task of all of us in our separate educational programs, and a new structure becomes a tool to assist and to supplement such self-examination with benefit for the whole University.

# A Guide to the Report

This Report consists of five sections, designed to reflect the foregoing concerns.

The first two sections lay the groundwork for some mechanisms and some guidelines within which the rest of the Report may be considered.

**Section One: Some Processes of Self-Renewal** proposes the basic machinery to encourage continued review and to strengthen undergraduate education; these processes are utilized in the further sections of the Report.

**Section Two: The Implementation of Self-Renewal** provides some guidelines and principles to serve schools and colleges in reviewing their own focus and techniques and also proposes a developmental process for an Open College to encourage programs that school and college self-examinations determine would be more appropriately done outside existing structures.

The last three sections of the Report discuss overall methods of response to the development and strengthening of the undergraduate learning environment.

**Section Three: Time, Motion, and Mobility** deals with high school relationships, the time spans of undergraduate education and the redefinition of degree structures, and the articulation of undergraduate divisions with each other and with the graduate divisions.

**Section Four: Learning** deals with specific proposals for the creation and expansion of learning opportunities for students and teachers.

**Section Five: Teaching** deals specifically with the roles, development, evaluation, and reward of the teaching faculty in undergraduate education.

**Appendices:** In order to sharpen the presentation of its main recommendations, the Commission has reserved supporting materials for a series of five appendices, one for each of the sections of the Report. The appendices contain the Student Survey and an explanation of its development, individual educational programs that the Commission feels have special application to its recommendations, supporting reports and studies, additional Commission evaluations, and a reading guide for each section.

**Areas To Be Explored:** The Report that follows also indicates the several areas that the Commission did not explore but wishes to identify for future development. The Commission did not fully address the economic issues of undergraduate education nor the specifics of budget allocation within the University, although it was constantly conscious of these concerns; the Commission lacked the time and the financial expertise to delve deeply here, but has recommended that future groups be provided with such expertise. The limits of time also kept the Commission from reviewing every current reform and innovation under way here and elsewhere; there is still much to be done. The Commission avoided governance issues as well and restricted itself to clearly educational matters. The tenure issue is now the subject of a special Commission of the Senate. Finally, the Commission has recognized but made no contribution to exploration of cooperative efforts with other institutions in the city. This vital element must also be pursued.

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# Section One: Some Processes of Self-Renewal

Self-studies of educational reform made in large and multifaceted universities over the past five years have had very poor records of implementation.* Educational issues have remained the concern of small groups rather than the general concern of the institution. Many commissions have been thoughtful, sometimes creative, but with few exceptions they have not recognized that the process of self-renewal is not one that can be delegated to a committee or commission; it must inevitably be the responsibility of ever widening circles throughout the University if it is to serve as anything more than an educationally interesting interlude.

Comparable studies have spanned much longer periods of time than this one, even at smaller and less complex institutions than New York University. The Commission believes that its work of this year should be critically examined and expanded. The condition and future of undergraduate education are and should be the subject of continuous attention in all parts of the University. Such attention to the primary educational mission of the University should be at least as well-organized as other functions of the enterprise.

There are, then, three essential elements: that ever widening circles of the University community take up the business of self-evaluation and renewal; that research on the University and evaluations of current national developments be institutionalized; that undergraduate education be given a permanent focus and leadership emphasis in University administration.

In pursuit of these aims, the Commission makes the following recommendations:

## PROPOSAL 1

*Each undergraduate division should undertake an examination of its educational goals and programs.* Such examination could be done through a college or school Student-Faculty Commission on Undergraduate Education or through an existing appropriate mechanism. Such a group should include students and tenured and untenured faculty members.

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*Dwight R. Ladd, *Change in Educational Policy: Self-Studies in Selected Colleges and Universities* (New York: McGraw-Hill, 1970).

The same imperatives and concerns that motivated an all-University examination of undergraduate education are present and pressing within each division. It is clear from this year's work that it is neither proper nor productive for a commission reflecting membership from across the University to interject itself overmuch into the internal educational affairs of individual divisions. Through the Commission's investigations and discussions with students and faculty many educational problems have been identified, including decisions about the future course of a particular division or divisions, which require a major examination within the division(s). The consideration of undergraduate education by any University-wide commission can only be useful if it contributes to assisting such formal consideration in the various parts of the University. In this sense, then, the sections of this Report are addressed to the different parts of the University community and specifically to committees organized in the schools and colleges. The School of Engineering and Science, for example, established a committee for self-examination at its March 1971 faculty meeting; the Educational Policy and Planning Committee of University College is developing such a group; and the Educational Policy Committee of Washington Square College prepared a thoughtful report on undergraduate education for its May 1971 faculty meeting. This theme is further elaborated in Section Two of this Report.

## PROPOSAL 2

*The Senate Educational Policies Committee should consider the establishment of an Advisory Council on Undergraduate Education* to ensure that the all-University character and spirit of self-renewal may be continued and in order that the participants in school evaluations may have a forum for University exchange and participation. The Advisory Council should report to the Senate and be advisory to the Office of the Vice Chancellor for Academic Affairs.

The composition of the Advisory Council will be determined by the Senate Committee on Educational Policies. This Commission suggests that the Council be composed of one elected faculty member from each undergraduate division; one student selected by the student government of each undergraduate division; and the chairman of the Student-Faculty Commission on Undergraduate Education or its equivalent in each undergraduate school or college. In addition, it is suggested that the following be considered for membership: a representative of the Office of the Vice Chancellor for Academic Affairs; a resource person with budgeting expertise; a member selected by the Faculty Council; and two experts from outside the University, agreed upon by the Council members. The chairman should be named by the Senate Committee on

Assignments. The Council members should serve a two-year term, and the Council should reevaluate its role at the end of that period.

In general, the Advisory Council would be charged with continuing the work of this Commission, with keeping abreast of the unfolding problems, and with developing opportunities for undergraduate education in the years ahead. The Council should issue a report each semester on the current status of undergraduate education at the University. In particular, it would have as part of its developing agenda:

*a)* Evaluation of proposals made in this Report for their continuing applicability or need for revision.

*b)* Expansion of areas ignored or only suggested in this Report, as for example, the vital question of inter-university consortia in undergraduate education in New York City.

*c)* Development of interaction and the sharing of information among the various divisions of the University represented in the composition of the Advisory Council.

*d)* Provision of advisory judgments on new and suggested undergraduate programs, as developed in Section Two of this Report.

*e)* Commissioning and evaluating studies necessary for decision-making in the University, especially in-depth interviewing of students and faculty on attitudes and expectations, as well as on particular educational issues.

## PROPOSAL 3

*The Chancellor's Office should provide undergraduate education with a permanent focus in the Office of the Vice Chancellor for Academic Affairs.*

The Commission takes seriously the injunction of Professor Ladd, from his study of previous commission reports, "... that strong skillful leadership is virtually mandatory for the success of any serious effort at educational reform.... Indeed, it may be only moderate oversimplification to suggest that leadership is a *sine qua non*."*

The central administration's educational focus should recognize the importance of undergraduate education in the University and specify such responsibility. It should provide a means to accomplish some of the cross-University proposals that are contained in the following pages and assist in self-examinations across the University and in the sharing of new developments. It should also encourage the implementation of programs and projects approved by the Senate (such as the University Without Walls) and serve as a catalyst for the development and evaluation of new undergraduate programs suggested in Section Two of this Report.

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**Ibid.*, pp. 205, 207.

As part of this proposal, *the University should establish an Office of Academic Development headed by a Director of Academic Development.* This office should combine the functions of an office of institutional research with a broader mandate to keep abreast of developments in higher education here and elsewhere. It should develop the statistical and evaluative material that can provide the basis for continuing appraisal of the University's academic condition, as well as strategies for innovation in the University. The Director should be responsible for the encouragement, servicing, and implementation of intra-University committees as described in Section Two. The Director should report to the Vice Chancellor for Academic Affairs.

The Office of Academic Development would supply information to administrators and to faculty-student committees on programs within and without the University and would carry out studies on their behalf. The University community needs to know a great deal more about itself on a continuing basis if systems of governance and problem-solving are to be effective. The Commission acknowledges its own limitations and the limitations of its life span, but it has tried in its short term to lay the foundations for such a University resource and to sketch out some of the complex areas that will require this kind of examination. The Commission believes that such work should continue. In the event that the University Senate creates a Commission on Graduate Education, for example, the services of the Office of Academic Development would be an indispensable prerequisite for its effective functioning.

As another aspect of this proposal, the Commission recommends that *the University seek to fund a program of twenty Student Internships in University Affairs,* operating through the Office of Academic Development. These internships would be open to undergraduate students in all divisions of the University.

This recommendation embodies several important educational facets. First, in the current trend toward internships, the needs and problems of the University as such are as important and as intriguing as those of other institutions in our society; the academic, social, financial, and administrative problems of undergraduate education are excellent internship areas. Second, the Commission believes students are able to and, given the opportunity can, make a substantial contribution to the analysis of educational problems and their solutions. Third, governance groups in the University need such impartial help to carry on studies that go into sensitive decision-making.

Internships can serve important functions, in areas such as program evaluation, surveys of students and faculty, minority group affairs, development of community resources, surveys of technological resources, urban studies opportunities, etc.

# Section Two: The Implementation of Self-Renewal

In the belief that a continuous process of self-examination and renewal is of primary importance to the future of undergraduate education at New York University, the Commission recommends a number of specific actions. These proposals are summarized here and developed subsequently in this section.

## THREE PROPOSALS

### One: Examination of Criteria

*The Commission recommends that each college or school within the University, through a newly established commission or appropriate committee described in Section One, evaluate its goals and methods of instruction on the basis of a set of common principles.*

The purpose of self-evaluation is to define each school's goals or objectives clearly and to direct its resources effectively.

The challenge to universities and colleges to identify their roles and to match their processes to those goals is critical.

### Two: Structural Flexibility

*Following determination of goals, the Commission recommends that each college commission or committee should consider its present structure in order to allow for a diversity of approaches to its stated goals.*

The purpose of considering alternative structures is to make it easier for each school to respond creatively to changing conditions in higher education.

Each school should offer a variety of approaches to the goals they have set for themselves. The determination of a primary educational mission, or set of goals, does not mean that creativity ends there. On the contrary, it means that true educational innovation can begin within the framework of agreed upon objectives.

### Three: An Open College

*The Commission recommends that the University create an Open College to house those alternative approaches to undergraduate education that are not judged appropriate for existing schools.*

The purposes of creating an Open College are:

- to provide a setting for interdisciplinary programs that do not identify with the goals of any of the separate schools.
- to provide alternative forms of undergraduate education for those students who choose not to enter the more traditional schools and colleges.
- to provide a mechanism for the initiation and continuing development of new curricular forms and their regular evaluation.

## A. Common Criteria

In pursuing its first recommendation that each college and school examine its goals and methods against some common criteria, the Commission has noted that there are a number of factors affecting the course of higher education in this country that have come to the fore over and over again in recent surveys. Some, including "student diversity" and "sense of community," have become popular, rhetorical coin. As worn as the rhetoric may be, however, the Commission believes that these factors should serve as guiding principles for the evaluation and restructuring of undergraduate education at New York University.

1. *Students are changing:* they are coming from more diverse cultural and educational backgrounds, with different hopes, values, and expectations than our University structures are traditionally accustomed to recognize.* If attempts to focus on educational goals are to proceed with any air of reality, the University must know more about its students. This is also true if educational methods are to be effective in assisting students toward those goals.

   We are still accustomed to change at a generational pace and our institutions reflect this. To take a position of leadership in undergraduate education, one must recognize the fact that the clientele may change markedly every three or four years.

   In addition, the urban setting of the University has led to a conscious effort to bring in students from different backgrounds, and this implies a commitment to respond to different student needs. If this commitment is to be more than words, it requires the concerted efforts of every department and school to ensure full opportunities in educational programs, admissions, financial aid, counseling, and support programs for minority group students.

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**See* Report on Student Typology, Appendix II.

2. *A sense of community is vital,* particularly in an urban university and most particularly in New York City. All students need a sense of identity, of sharing a community of interest, of being engaged in a community of purpose. Size of classes, schools, even fields of study are important factors as is individual attention by faculty members and administrators. What appears to be most needed is the sharing of common goals and direction by students and faculty members engaged in a defined educational program.

3. *Educational approaches to stated goals can be as diverse as the student body.* A number of approaches may be academically sound, but one may best suit a particular group of students. To allow for latitude in the identification of interest and approach, the structural organization of schools may need adjustment. The degree to which schools are and remain flexible and responsive in approaching their goals may determine their educational success in the future.

4. *Time is a variable factor in undergraduate education.* Some students are able to achieve their goals in a relatively brief period. Other students may require longer than the standard four years. As conditions change and as systems change, time allotments and time requirements must change with them. The effectiveness and cost of education are obvious concerns.

5. *Educational philosophy must become the guidepost in a period of change.* It is vitally important that those involved in undergraduate education identify their institutional goals and define the philosophical basis on which their programs are founded. If to be flexible and responsive is important at this time, the philosophical basis from which one responds becomes even more critical.

## B. Advantages of Structural Flexibility

Guided by the foregoing considerations in an evaluation of undergraduate education at the University, the Commission envisions a continuing process of reorganization and renewal throughout all schools and divisions. There will be advantages in such a renewal process:

*For the students it will . . .*

1. provide a range of options by giving all students a choice not only of their field of study, but of the form and duration of their educational experience;

2. provide for small communities of interest where the students will not only find faculty interested in their particular goals, but where students can have some effect on what and how they are taught;

3. encourage all students to take responsibility for, and initiative in, designing the course of their education.

*For the faculty it will . . .*

1. provide individual faculty members with an opportunity to emphasize their strengths and to participate in programs that make best use of their particular talents and interests;

2. provide its members with an opportunity to relate primarily to students and fellow faculty members who share their interests;

3. provide its members with an opportunity to exercise initiative and leadership in the continuing development of educational programs;

4. allow a member to redirect his area of primary interest and expertise over a period of years and to change his role in the academic community, thus allowing for career options throughout a working lifetime within the framework of a single institution.

*For the established schools it will . . .*

1. provide each school with a clearly defined identity and an opportunity to play a singular role in the metropolitan area;

2. enable each school to evolve from a vertical line organization into a looser umbrella concept that can accommodate small units and provide a variety of educational approaches to their particular goals;

3. free faculty members for exchange between schools;

4. free students for access to programs in other schools.

*For the University it will . . .*

1. accommodate distinctly novel approaches to the educational process and provide for various combinations of approaches;

2. use the faculty's multiple strengths effectively;

3. broaden program offerings that will put the University in a competitive position with other institutions of comparable size and setting;

4. allow the University to spearhead direct and imaginative responses to new educational directions and to satisfy various needs in higher education.

## C. The Open College

While the Commission is convinced of the need for renewal mechanisms in all parts of the University and recognizes the advantages to be gained in every school, it believes that an Open College based on the foregoing criteria and goals should also be established.

In the Commission's model, the Open College will consist of a cluster of interdisciplinary programs, each developed by those faculty members and students who will participate in it. Programs can be formed to deal with new subject matter or may represent fresh approaches to the whole spectrum of liberal studies and may draw on present or newly recruited faculty members for these purposes.

Such programs may have a limited life span. They will exist as long as they are viable, e.g., as long as the community of interest exists or as long as those particular student needs exist.

The Open College will serve to increase the number of options available to both students and faculty. It will serve to house programs that cannot or should not be housed in the established schools. In the future, it could serve as both the catalyst and the testing ground for radical change in the other schools.

The following paragraphs provide a general description of the proposed Open College.*

### 1. GOVERNANCE

The Open College should be headed by a dean whose major responsibilities will be the initiation of programs, the allocation of resources, and the delineation of college policy. Each program would be headed by a master.

The dean should also serve as chairman of the Open College steering committee, a body composed of five faculty members, four students, and two recognized leaders of innovation in higher education from outside the University. This committee should be formed once at least three programs are in operation and a dean has been appointed. Its responsibilities should be to advise the dean on the evaluation of proposed programs and decisions regarding continuance of programs.

The faculty of each program within the Open College should act as a committee of the whole to deal with all matters that traditionally fall

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***For a more detailed description of the Open College, *see* Appendix II.**

within the province of a college faculty. Student representation may vary, but it is assumed that each program will govern itself in the spirit of community.

## 2. POLICY

It should be firmly established that participation in the Open College by faculty members from other schools is a desirable and extremely important service to the University. All parts of the University should recognize the vital role played by those faculty members who are assisting directly in the process of educational renewal.*

*a)* There should be no tenure in the Open College. Faculty members should be retained on a contractual basis (e.g., one-, three-, or five-year contracts). Where appropriate, they should maintain their privileges of tenure in the established schools.

*b)* Students in other schools in the University should be free to join these new programs if they wish or be able to take advantage of offerings within the Open College. Students in the Open College should be allowed to supplement their own curriculum by taking courses offered in the established schools and should be free to adopt a "major" once they have identified a "disciplinary" interest.

*c)* Programs in the Open College may articulate with each other where useful and should be free to interact with other schools in the University as needed.

## 3. IMPLEMENTATION

In order to implement this plan, the Director of Academic Development (*see* Section One, page 4) should work closely with the evaluating commissions or committees of the several schools, helping to evolve plans for intra-University cooperation, and establishing mechanisms for the examination and development of those programs that may appropriately form the Open College.

### Intra-University Committees

*The Director of Academic Development should encourage the development of intra-University committees in response to enunciated needs or interests on the part of faculty members and students.*

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**See* Section Five, p. 49, for detailed recommendations.

As important as defining goals for the future may be, the mechanisms that enable us to move toward these goals are equally vital. Goals and blueprints need to be reevaluated constantly in the light of emerging realities. Abstractions must be subjected to practical examination. The extent of need and interest must be measured. Most important, a logical (responsive) system of initiation and development of programs must be established.

The University's experience with the recommendation on the University Without Walls proposal has revealed a natural process of initiation and development. In the case of the University Without Walls, a task force was set up to examine and evaluate the idea. Its conclusions have been passed along to an intra-University committee composed of people with real interest in participating in the operation of such a program, for development of the structure and goals of the program for this University. This is the process the Commission believes can operate in initiating and developing other new programs.

*The Director of Academic Development and his staff should coordinate the work of these intra-University committees and assist them in the evaluation and development of their proposals,* utilizing the resources of the Office of Academic Research. Once a proposal is in final form, it should be submitted to the Advisory Council on Undergraduate Education for recommendation.

*When at least three programs have been approved and funded, the Director of Academic Development should recommend to the governing authority of the University that the Open College be formed and a dean appointed.*

### Time Frame

*These procedures should work within an established time frame.* Intra-University committees may be formed at any time. With the help of the Office of Academic Research they should be expected to report to the Director on their plans within one year from inception. Implemented proposals should then have a three-year time span to receive students and develop a full curriculum. A fourth year should be devoted to self-evaluation and to evaluation by the Advisory Council on Undergraduate Education. At that point, a decision should be made as to whether or not a particular program should be continued, altered, or phased out.

### Rationale for Implementation

The Commission believes that the process of initiation, development, and evaluation described here has a number of advantages:

*a)* It encourages interaction between the various divisions of the University.

*b)* It provides a particular focus and responsibility for the Office of Academic Research.

*c)* It establishes clear lines of responsibility and requires a minimal amount of bureaucratic procedure.

*d)* It establishes the possibilities for outside funding of newly developing programs.

*e)* Most important of all, it provides for the time and the system of checks and balances needed to test the assumptions made in this section of the Commission's Report. These mechanisms afford an opportunity to examine the utility of an Open College blueprint in realistic terms.

## D. Additional Roles of Intra-University Committees

It should be noted that the intra-University committee mechanism affords several other opportunities:

*a)* It can demonstrate that a program might best be done in ways other than involvement in the Open College.

*b)* It can handle intra-University problems that are vital but will probably not result in a specific educational program, such as the coordination of educational technology, summer programs, etc. Such efforts will need the services of the Office of Academic Research as well.

*c)* It can provide a method for continued operation of an intra-University program that might not be conveniently placed in either an existing school or the Open College.

# Section Three:
# Time, Motion, and Mobility

## CONCERNS WITH TIME, MOTION, AND MOBILITY

**The Commission places a high priority on flexibility in the time, motion, and mobility involved in an undergraduate education. It believes that a reexamination should be made of: *(a)* the relationships of high schools to undergraduate education; *(b)* the time required for individual students to move through the variety of undergraduate educational experiences and its relationship to the academic calendar; *(c)* the lateral mobility available to students within the University; *(d)* the vertical mobility available for students in relation to graduate and professional programs; and *(e)* the role of summer sessions.**

Time, motion, and mobility are matters of genuine concern because:

1. The academic preparation of some of our incoming students exceeds our historically based expectations. For some, the last years spent in secondary schools may be wasted or even detrimental.

2. Private institutions must face the problems of costs for students and develop educational programs that will be both educationally sound and financially reasonable. The extensive resources of graduate and professional programs should strengthen both the incentives for undergraduate students to come to New York University and the quality of the students' educational experience.

3. The excellent and varied resources of the University should be made available to students across school lines wherever feasible. This is especially true in times of financial stress, when faculty resources cannot be duplicated. Reasonable educational planning requires this as well.

4. Students vary in their ability and their motivation to achieve their undergraduate degrees, in the traditional four-year time span; some can derive maximum benefit in three years or less, while others may wish (and mounting evidence points this way for the future) to extend their formal schooling over longer periods of time. Some 59 percent of students surveyed here expressed a desire for such an option to extend the time span for their bachelor's degrees (*see* Appendix I).

# I. HIGH SCHOOL RELATIONSHIPS

The Commission submits the following recommendations bearing on the relationships of high school to undergraduate education. The reports on this year's applications to undergraduate divisions indicate that these relationships will remain of extreme importance to the University.

## A. Delayed Matriculation

*The Admissions Office should examine the feasibility of admitting candidates to New York University with the understanding that they might postpone matriculation at the University for up to three years.* Students matriculating elsewhere during the interim period would fall into the transfer category.

The Commission believes that there is a growing disposition on the part of students to examine alternatives to the college experience after completing high school. At the same time, there is some pressure on students to secure admission to a college or university on the basis of recommendations and other criteria that may not be readily available at a later time.

## B. Early High School Admission

### 1. ADMISSION AFTER JUNIOR YEAR OF HIGH SCHOOL

*The individual undergraduate divisions should revitalize the program of admissions at the end of the junior year of high school.*

The forces operating against such action seem largely to have dissipated since the introduction of this program. Yet the very small number of students who have been afforded this opportunity in the University indicates that most divisions have not taken the idea seriously. The Commission believes this is a possible area of student recruitment.

### 2. ADMISSION TO SPECIAL PROGRAMS AFTER SOPHOMORE YEAR OF HIGH SCHOOL

*The Commission recommends that the Director of Admissions examine the feasibility of admitting high school students into special programs at the end of their sophomore year.* The Commission has been impressed by the increasing evidence of the number of disadvantaged students leaving formal education at the end of two years of high school. Conceivably further exposure to high school experiences simply complicates and intensifies the problem of motivation for these students and increases the tasks of support programs for disadvantaged students. Where appropriate, such early recruitment programs should be tied into newly developing educational opportunities that are suggested in the following sections of the Report.

### 3. INVOLVEMENT OF HIGH SCHOOL STUDENTS IN REGULAR OFFERINGS ON UNDERGRADUATE LEVEL AND IN SUMMER SESSIONS

*Individual schools and colleges should examine ways to involve high school students from surrounding areas in regular offerings on the undergraduate level and in summer session programs.*

Such devices are relatively easy to provide; University College, for example, has for several years permitted neighboring high school students to take designated courses in the college. This proposal has educational and financial implications. The University can utilize such offerings to enhance recruitment for the undergraduate divisions at the same time as these high school students benefit from high-level work and secure placement and credit toward the undergraduate degree.

The Commission believes that the University does not now adequately utilize its summer programs for these purposes (*see* Summer Sessions, page 25).

## C. High School Recruitment Through Advanced Placement and Use of College-Level Examination Program (CLEP)

### 1. COLLEGE-LEVEL EXAMINATION PROGRAM

*The Commission strongly recommends that all undergraduate divisions offer credit for the College-Level Examination Program for incoming students and freshmen in residence.*

The Commission recommends that the Vice Chancellor for Academic Affairs, or his deputy, call a meeting of the chairmen of policy or curriculum committees of the undergraduate divisions to examine the CLEP program.

The rationale for this proposal was elaborated on in the Commission's December 1970 Progress Report and is included in Appendix III. The Commission endorses the Report of the Recruitment Committee of the Commission on the Effective Use of Resources concerning this subject. It is important that the CLEP program be made known and available to students before they enter New York University if it is to be useful as a recruitment device.

### 2. ADVANCED PLACEMENT POLICIES

*The advanced placement policies of the University should be reexamined and revitalized where appropriate and practices standardized within each of the undergraduate divisions.* Statistics available in Appendix III indicate that the program could have a far greater impact on undergraduate education than is now the case. This subject should be on the agenda of the meeting proposed in §C1, above.

## II. THE BACHELOR'S DEGREE

The Commission submits the following proposals that relate to the time and motion involved in securing the undergraduate degree. The time span for completing a degree should not be an overriding consideration in an undergraduate education. The task here is to determine different degree requirements for diverse students — degree programs of shorter or longer duration than the present four-year model, depending on student capacities and predilections. The Commission believes that the time involved in undergraduate education should be made flexible enough to accommodate various periods of time for the achievement of a degree.

### A. Three-Year Degree

*The bachelor's degree should be redefined as a three-year degree in some programs.*

This proposal cannot be implemented in the abstract. Meetings with New York State Higher Education authorities reveal what we had already determined: that there is no theoretical description of a bachelor's degree. Programs that describe a three-year bachelor's program in specific terms, for example, will be evaluated by the state for certification on their individual merits. The Commission endorses such programs and firmly believes, on the basis of our discussions, that state educational authorities are ready and eager to certify such programs. Other universities and colleges are now in the process of developing such degree structures. Almost 60 percent of the students participating in the Commission's survey indicated interest in a shorter time span for the bachelor's degree program.

### B. Acceleration of Four-Year Degree

*The traditional four-year bachelor's degree program should include mechanisms that permit acceleration outside the regular summer sessions.*

The following suggestions would assist students who are qualified and interested in accelerating their degree programs.

a) *The College-Level Examination Program of the College Board supported in § C1, page 16 should be introduced in all undergraduate divisions* in order to recognize special work done by students in or outside high schools. Of the students surveyed by the Commission, 85 percent are in favor of this opportunity.

b) *The advanced placement mechanism discussed in § C2, page 17, should be revitalized* in the undergraduate divisions, and a uniform policy created among the divisions.

c) *The undergraduate divisions should seriously consider proposals that would permit one quarter of a student's course work to be accomplished by "independent study."*

   One such program is being examined at University College. In it, designated students would be given detailed course syllabi, reading lists, and some guidance in appropriate subject areas. They would then take the examinations for these courses at designated times during the year.[*]

   This proposal has several advantages: it can serve as a recruiting device for good students; it would address itself to students who work best individually and those who can take advantage of learning facilities outside the classroom; it relieves the faculty and students from their roles in information delivery and releases them for more profound exploration of ideas; and it encourages lifetime learning habits through independent study. Of the students surveyed in the University, 83.6 percent say they would welcome more independent study. (*See also* Independent Study, page 29, for an extended discussion of this topic.)

d) Schools and colleges on the four-course plan might wish to examine the proposition that properly qualified and motivated students could add a fifth course to their program, either in independent study or in undergraduate or available graduate course work, to accelerate their degree program.

e) Courses for program acceleration may be initiated during the January following the calendar reform proposal discussed below. This January period, together with the devices mentioned above, could help to create an accelerated degree for some students.

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[*] ***See* "Proposal on Independent Study at University College of Arts and Science," Appendix III.**

## C. Calendar Reform and the January Program

The Commission recognizes that the Senate Calendar Committee is examining the proposal for a calendar reform that would end the first semester by Christmas and provide a four-week intersession for individual school use. In examining the variety of alternatives that have been employed across the country, this calendar reform seems the one best suited to initiate special seminar programs, intensive language programs, off-campus and foreign programs, and avocational programs. The Commission believes the "January Program" can be an exciting device from many educational points of view, yet there are problems and caveats that should be noted before its adoption.

i) The introduction of the January Program at some schools has created difficulties. Carefully planned programs and alternatives are necessary before such a calendar is introduced, or else the period lapses into a prolonged vacation that can become debilitating rather than exciting. This implies, as most schools have discovered, a "January Program Office" that arranges January Programs abroad, in Washington and other cities, at other campuses, and within the University.

ii) There are problems of faculty time and planning that must be faced. Where faculty members are not available to plan January Programs with students, or where they are not available on campus, the program founders. This means that mechanisms for adjusting faculty loads or salaries must be developed.

iii) The notion of a noncredit or "free" period for spontaneous programs has not worked successfully. To be useful and attractive, the January Programs must include credit toward the degree. The combination of credit and "free" programs seems to be the most productive and exciting idea.

iv) The above points lead inevitably to cost. The question of financing a January Program with the costs to be borne by students must be faced.

v) Experience shows that the number of Incomplete grades in the first semester is higher by a factor of four over the second semester. Students can utilize the four-week, post-Christmas intersession to complete papers and other course requirements. If properly planned, this period need not be viewed as a second chance, but rather as a time of educational interaction for faculty and students.

## D. Deceleration of Bachelor's Degree

*The Commission recommends that the traditional bachelor's degree should be envisioned as a degree that can be decelerated as well as accelerated.*

It believes that such a proposal will not only encourage students to come to the University but will relieve some of the pressures that produce the substantial attrition rate during the first two undergraduate years. This means that a regularly matriculated student might take as many as six years to attain the degree. To put this into effect, the Commission recommends that the undergraduate divisions and all new programs examine the procedure whereby students are permitted to absent themselves and to return. The Commission's feeling is that from date of matriculation to the end of six years a student in good standing could automatically leave and later rematriculate. The Commission recognizes that some students will enroll in programs of even longer than six years' duration (*see* Section Four, page 37).

The student survey conducted by the Commission found that 56.9 percent favored the lengthening of the time span of the undergraduate degree in order to take a year or a semester for work or travel, 22.3 percent disagreed, while 22.8 percent had no opinion on this prospect.

Schools and colleges should also develop programs that would allow a student to plan his education over a six-year period. As an additional point, the Commission recommends that the University make available daytime class opportunities for staff members with tuition remission privileges.

## E. Academic Work at Other Institutions

*The Commission recommends that each undergraduate division examine its policies and procedures for permitting students to take a semester or a year's work at another institution.*

This is the era of transfer students and New York University is a producer as well as a beneficiary of such students. It seems most sensible to enable a student to examine alternative or supplementary educational experiences without transferring completely to another institution. The long-standing precedents for this practice at European universities provide us with historical confirmation of the idea.

# III. ARTICULATION BETWEEN UNDERGRADUATE DIVISIONS

*The Commission recommends maximum mobility and articulation between undergraduate divisions.*

The Commission is vitally concerned with internal mobility of students in the University. It has been consistently emphasized to Commission members that, regardless of some rules on the books and often because of others, colleges are now islands of accreditation in the University. The Commission proposes the acceptance of courses between colleges and more joint appointments of faculty. This in no way envisions interference with the highly desirable programmatic quality of college instruction nor with the necessity of colleges and programs to set the criteria for their students. The Commission is seeking ways to intensify just such programmatic quality and student identification. However, given established criteria for acceptance and the generally pervasive elective system, students should be provided easier mechanisms by which to reconsider their educational choices as well as to take courses appropriate to their programs.

The Commission believes the financial resources of the University can be better planned through such cooperation and joint appointments. There are numerous programs and individual examples on which to build. They include the program relations of the College of Business and Public Administration and certain Washington Square College departments; the course cooperation between the School of the Arts and University College, the College of Business and Public Administration and the School of Continuing Education; and the search for joint appointments between the School of Education and Washington Square College. The results of the student survey on registering for course work in another school indicate that 21.1 percent have experienced difficulty in registering for such course work, 18 percent have not, and 60.9 percent have not tried. The survey shows that 21.4 percent have experienced difficulty in receiving credit for course work in other schools of the University, 22.6 percent have not, and 56 percent have not tried. The percentage of those not trying to take such course work in other schools is a discouraging statistic in a large university with many excellent and varied program offerings.

The Commission believes there are a number of factors influencing this low level of exchange between schools, including:

1. The widespread perception of budgeting implications. The Commission has heard many times and in many quarters that advisers and faculty members are reluctant to open opportunities for students

in other divisions because of a presumed loss in assigned revenue to the particular school in which the student is registered. We have also been assured that such fears are not realistic. Still, the perception of such a problem works just as effectively as its reality to limit student opportunities.

2. The discrimination of some schools in the University against the grades achieved by their students in another.

3. Unrealistic credit allotments for student use within the University outside their college of registration. The Commission believes that such credit allotments where they must be maintained should at least encompass a full semester's work.

4. The high percentage of major courses that must be accomplished in a particular school, thereby discouraging students from taking courses in other divisions.

5. From reports to the Commission, it seems that many of those advising students in the several divisions are not always fully aware of the range of opportunities available in other divisions. The providing of such information should have a very high priority for advisers (*see* The Advisement Role, page 57).

## IV. ARTICULATION OF UNDERGRADUATE AND GRADUATE PROGRAMS

### A. Mobility and Articulation

*The Commission recommends maximum mobility and articulation between undergraduate and graduate programs at the University.*

If bachelor degrees for certain groups of students are redefined as three-year degrees, and if acceleration of traditional degree requirements is provided (indeed, even where it is not), it makes sense to provide students with easier access to graduate programs at the University. Some of the requirements of graduate programs, especially the two-year programs, can frequently be met in the development of an undergraduate program. Such articulation would provide one more option in a pluralistic model of programs. The student survey indicates that 89.2 percent of the students polled would like access to graduate level courses in combined degree programs that shorten the time involved in higher education, 2.5 percent disagree, and 8.3 percent have no opinion. Clearly, a large number of students plan graduate study and would welcome the opportunity to coordinate their undergraduate and graduate programs more fully.

The arguments for better undergraduate-graduate articulation are recapitulated from the Commission's Preliminary Report of December 1970:

1. Graduate-undergraduate articulation is a response to the abilities and needs of a specific group of students, characterized by their commitment to a range of career specializations, for whom the "marking time" aspect of undergraduate education and the total time span of undergraduate education are discouraging, expensive, and sometimes prohibitive. The Commission believes that the University can respond to these concerns in ways that actually enhance the undergraduate experience.

2. There are students in the liberal arts for whom the present structure has encouraged career choices largely in the Graduate School of Arts and Science and in the Schools of Law and Medicine. Students deserve opportunities to experience, evaluate, and pursue wider career options more easily than is now the case. Given the current forecasts of the needs of the academic profession and the admissions crisis in other professions, and the professed purposes of a liberal education, the Commission believes students should have the full range of graduate and professional school options open to them.

3. There are financial implications in the articulation of graduate and undergraduate programs for both the University and the student. To lock-step students with varied abilities and interests into separated undergraduate and graduate options employs the financial aid resources of the University wastefully. The prolongation of the undergraduate-graduate time span can involve the student with ability and clearly defined educational goals in unnecessary psychological pressures and excessive costs. The pursuit of higher education by students with restricted financial resources is often discouraged by the time and cost factors of separate undergraduate and graduate degree programs. This situation has critical social implications.

4. The Commission believes that if private universities are to remain competitive with public institutions, they must produce educational alternatives with more attractive time spans and less onerous financial commitments for their students. Practically every administrator, graduate and undergraduate, with whom the Commission has spoken, and every commission or committee report consulted, has endorsed the compression principle as an option for some students. At New York University, with its present heavy emphasis on graduate programs, it is especially necessary to invigorate and make more attractive our undergraduate offerings that lead directly into graduate and professional programs.

The Commission suggests as possible methods and models of such articulation the following:

a) *Establishment of the principle and practice of temporary or permanent joint faculty appointments between graduate and undergraduate programs* in a broader way than now exists, so that students in liberal arts, engineering, etc., could come into contact with professors of business, education, social work, public administration, law, etc. The Commission believes this would enrich the undergraduate experience as well as encourage realistic consideration of career alternatives.

   University College and the School of Medicine are, for example, examining the establishment of such joint faculty appointments to address themselves to the first-year basic sciences in medical education.

b) *Establishment of working groups in the various schools and colleges to examine, propose, and implement mechanisms for closer articulation of graduate and undergraduate programs.* The Commission has been encouraged by the existence of some programs of this type and by the interest and enthusiasm demonstrated by the people who are pursuing them at this time.

c) *Development of programs that would permit students to apply some of their undergraduate courses toward a particular graduate degree program.* This model has evoked a favorable response since the publication of the Commission's Preliminary Report in December 1970. Several new programs utilizing this approach plus automatic graduate admission have been introduced. One such program involves four schools: University College, the College of Business and Public Administration, the School of Engineering and Science, and the Graduate School of Business Administration (*see* Joint Graduate-Undergraduate Programs, Appendix III).

   *A variant on this would place a student in a graduate or professional program and give him a bachelor's degree en route to a higher degree.*

d) *Development of programs that would permit undergraduates to register in graduate offerings without admission to the graduate program.* Such courses might later be applied toward a graduate degree. This option is now available between undergraduate schools and graduate programs that have a clear affinity but ought to be extended to graduate programs where the relationship is not a traditional one or where the graduate programs have no reciprocal undergraduate arrangements. This has the advantage of widening a student's area of interest and enriching his undergraduate education without committing him to any graduate program. Furthermore, the Commission believes it would be useful in exposing some undergraduates to career routes other than those traditionally embodied in their present school or college.

A detailed examination of individual graduate programs was included in the Progress Report of the Commission and is reproduced in Appendix III.

## B. Financial Aid for Graduate Articulation

*The Commission recommends that the financial aid package arranged for students in their undergraduate divisions be carried forward for those who have chosen an articulated graduate-undergraduate program.*

It has been brought to the attention of the Commission by the Office of Financial Aid that there are major financial aid implications in the creation of five-year combined programs between undergraduate and graduate schools.

The Commission realizes that such a proposal will require some rearrangements in present practices, but it has been assured that such arrangements are workable. The Commission envisions an enormous recruiting advantage in such a practice as well as the provision of more options for students once they are here. The Commission therefore encourages the implementation of the necessary policies and procedures in the separate schools and in the Office of Financial Aid.

## V. SUMMER SESSIONS

*The Commission recommends that the Senate Educational Policies Committee establish a Special Committee on Summer Sessions to examine the possibilities for summer programs, their coordination, their utility for accelerated study, their use for high school students, and the financial implications for both the student and the University.*

The summer sessions have been the subject of many communications to the Commission. The primary concerns have been that the summer sessions are: *(a)* not coordinated with the regular year offerings, *(b)* not geared to accomplish any discernible educational purpose of acceleration, and *(c)* are replete with duplications and lack coherence and planning. The Commission observes that these complaints are generally true. Reinforcing this view, 71.7 percent of the students in the Commission's survey favored extensive summer school offerings in order to accelerate their programs.

A major effort is required in this area to centralize, coordinate, and initiate summer sessions as a useful service for undergraduates. The Commission is aware of the difficulties involved and of the general decline in summer session enrollments across the country. Vice Dean John C. Payne of the School of Education provided an excellent presentation of the problems involved in the area of summer school sessions to the Commission and he can profitably advise the Special Committee recommended above.

The Commission suggests that the Special Committee should examine, among other things:

*a)* The proposition that summer work for undergraduates be made available at less cost per point than in regular sessions. Currently most undergraduate divisions are on a blanket charge plan. The problems of students postponing work in order to obtain a less expensive total degree program cost through summer classes would seem to be manageable.

*b)* The proposition that dormitory residence facilities be made available free or at reduced costs for students taking summer programs. This arrangement was undertaken at University Heights the summer of 1971, providing for a sliding scale which at one end had no dormitory fees for those taking a full summer school program, and with graduate fees for those taking fewer courses.

*c)* Propositions for intensified summer courses designed for people in the community and in industry.

*d)* Courses for high school students that may provide college credit.

*e)* Utilization of the University's Sterling Forest facilities for some summer courses.

*f)* The necessity for air-conditioning classroom facilities used for summer school sessions.

*g)* Child-care facilities for parents wishing to attend summer courses.

# Section Four: Learning

The learning process is the heart of the University—therefore, an appropriate environment for learning must be provided. Such an environment includes good teaching, advisement, access to educational materials, student and faculty interaction with peers, use of community resources, alternative learning circumstances in dormitories and libraries, and, indeed, may include many aspects of the student's life that universities have traditionally considered peripheral. The Commission realizes that most of what takes place in education is in fact independent study outside of the classroom. A dean at the University wisely pointed out to the Commission early in its deliberations that the actual time claim of teachers and classes on students is minimal, and that true learning is a function of the students' larger life with us. McGeorge Bundy reminds us of the breadth of the learning environment when he notes that "in the learning process the teacher himself is a means—a highly important means deserving full professional respect—but *not* an end, and the same is true of the administrator and even the parent."*

The Commission therefore addresses the issues of the expansion and improvement of the undergraduate learning environment at the University in the following pages.

## I. NEW LEARNING OPPORTUNITIES

The Commission recommends as areas of expansion of the present learning opportunities in the University:

### A. New Interdisciplinary Areas

There is a developing emphasis in undergraduate education on the interdisciplinary and multidisciplinary quest for the wholeness of knowledge that turns increasingly away from defining knowledge as a body of factual material that must be transmitted to students. One of the major purposes of these new courses and programs is to broaden the students' understanding of a given discipline and to assist him in understanding where the study leads and how it is applied to problems.

1. The Commission recommends that certain interdisciplinary themes be recognized as areas of all-University concern and opportunity

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*McGeorge Bundy, *Teachers College Record,* 72, no. 2 (December 1970), 202.

and that the varied and excellent resources of the several schools and colleges be made available in a more coherent way to undergraduate students in these areas. There are certain emerging interdisciplinary and multidisciplinary programs that have particular relevance to New York City and for which the resources available in the city are available nowhere else. The University also has faculty strengths of great importance in the individual colleges, graduate schools, and professional divisions for these programs. These areas include:

Urban Studies
Environmental Studies
International Studies and Study Abroad
Non-Western and Third World Studies

Here it is recommended that intra-University committees, described in Section Two, page 6, be organized by the Director of Academic Development in order to determine in what ways the substantial faculty, student, and course resources and interests of the various divisions might interact to provide a strong and exciting experience for individual undergraduates. The Commission recognizes the difficulties that have tended to reserve such educational ventures to the graduate level but believes that experiences at other institutions may be helpful in examining and handling such difficulties. The University must maximize its attractiveness to students by clearly delineating unique educational offerings that reflect its strongest resources and the special capabilities that the city provides to it.

2. The Commission recommends that individual schools, colleges, and departments examine the possible uses of such multidisciplinary and interdisciplinary approaches to meet their own particular educational needs and goals. Many such courses, for example, are being designed to provide insights and knowledge from a discipline to those not planning to specialize in that discipline. There have also been attempts to utilize such courses to give coherence to the humanities in a period of declining enrollments. The most important work in interdisciplinary studies seems to occur when problems or areas of special content are identified that naturally involve more than one discipline.* In addition, new relationships are being developed between departments, and even between schools, in areas such as psychobiology. The Commission has received an exciting proposal for a program in biomedical engineering involving the two University Heights colleges (*see* Appendix IV).

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**See* Jean Meyer's article, "The College and the University. A Program for Academic Renewal," *Harvard Bulletin* (November 16, 1970), p. 24ff.

The Commission recognizes that the word "interdisciplinary" is now in vogue, and its semantic appeal tends to overshadow a careful analysis of the factors that must be addressed if such courses and programs are to be effective. These include:

*a)* the careful delineation of course content.

*b)* the careful assignment of team-teaching responsibilities.

*c)* the review and determination of current prerequisite structures to determine clearly the expertise required for such courses.

*d)* the financing and administrative arrangement of teaching assignments in such courses and the allocation of sufficient time for course development essential to these new areas.

*e)* the provision for mechanisms to sponsor, oversee, and evaluate such courses within colleges and schools. The range of options here is wide, including "division committees" in humanities, social sciences, and sciences; a central interdisciplinary committee; an interdisciplinary department or division; or simply intradepartmental arrangements. Each has its merits in specific cases.

*f)* departmental recognition of the teaching done in such courses.

## B. The Student Role

One of the most exciting recent trends in education has come in the area of a more direct student role in the teaching-learning process. To enhance learning opportunities, the Commission recommends:

### 1. INDEPENDENT STUDY

*Expanded use of independent study within existing schools and colleges and through such programs as the University Without Walls.*

The expansion of independent study resources through faculty assignment, educational technology, and special programs such as the one described in Appendix III is highly recommended for several reasons. The Commission believes there are students who learn best in an unstructured situation. In addition, although experiments show that quantitative knowledge accumulation does not differ substantially between the classroom situation and independent study, there are substantial differences in the acquisition of useful learning habits. The long-range impact of independent study in developing self-discipline and commitment to learning is its most valuable contribution.

The provision of independent study options, however, is not as simple an enterprise as recent reports would have one believe. Information from across the country indicates that independent study for undergraduates has had a mixed record of success, largely because the mere invocation of the concept was considered sufficient planning. A hard-headed analysis of independent study is available by Lewis B. Mayhew, "Can Undergraduate Independent Study Courses Succeed?" in the *College Board Review* (Spring 1971, pp. 26-30). Professor Mayhew identified the following factors:

- the cost factor. Most programs begin with the thrust of enthusiasm, but where the responsibilities have not been institutionalized the programs disintegrate. Independent study has not yet proven to be a method to save money.

- the time factor. Time allotted students for independent study must be sufficient to produce an effect; the results of one course are not likely to be great, and a substantial investment of time must be accorded to independent study if it is not to be diverted to other courses being taken in the same semester.

- the institutionalization of programs. Permissive mechanisms that do not create an institutional acceptance and encouragement of independent study do not readily succeed.

- the environmental factor. Schools should not attempt major programs of independent study unless other reforms designed to support such an environment are also undertaken.

As an additional note on independent study, the University Without Walls, recommended in the Commission's Progress Report in December 1970, was examined by a special University Senate Task Force. A planning year was recommended if funds could be obtained from outside the University. Funds have now been secured for the year of planning, and the Commission believes the foregoing considerations should be weighed in that planning period.

## 2. STUDENTS AS TEACHERS

Reports from across the country, and most especially the experience in departments at both University Heights and Washington Square, indicate that students can play a vital and exciting part in expanding their learning opportunities by themselves assuming roles as discussion leaders, resource people, and independent study aides. Upper-division students working with freshmen and sophomores in controlled circumstances seem to produce benefits for all concerned: there is an enormous benefit for the student-teacher in organizing and presenting material, while the students in the group benefit from close personal contacts not always available in large class settings. In some cases, such a teaching role is part of the assignment of an advanced course in the department for which the student-teacher receives academic credit. Programs of this type elsewhere indicate some problems, but no more than are to be expected in any learning situation. A description of Associate Professor Richard J. Koppenaal's program in Washington Square College is provided in Appendix V.

### 3. STUDENTS AS POLICY-MAKERS

The Commission does not wish to shift its attention to matters of governance. However, there is a point to be made about the learning value of appropriate student participation in university and college affairs. One of the important reasons for developing student involvement in policy-making in colleges and universities is the learning aspect. It seems peculiar for universities to encourage students to participate in the "real world outside" for its educational value without recognizing the same point within. This means, in addition, that periodic signs of student apathy or lack of concern are not sufficient reasons to cease providing for student involvement. It is the task of students and faculty to pursue and to develop the learning opportunities in college affairs in the same way that they pursue and develop the traditional academic sides of undergraduate programs.

### 4. STUDENTS AS ADVISERS

For a discussion of this subject *see* Section Five, page 60.

### 5. STUDENT-INITIATED COURSES

The process of creating undergraduate courses is a valuable educational experience for students in itself and tends to intensify the impact of the subject matter. Such courses should be received in the same way as faculty-initiated courses and, if judged adequate, should be given for credit. Experience indicates that the identification of interests and motivations in course-planning assists in directing students to in-depth disciplinary studies.

The Commission has available examples of mechanisms now in use within the University for student-initiated courses and, in addition, reports on such procedures at several other institutions.

## C. Resources Beyond the University

The Commission recognizes the importance of expanding learning opportunities for students beyond the campus boundaries and recommends examination of the following areas:

### 1. WORK EXPERIENCE FOR ACADEMIC CREDIT

*Work experience for academic credit under controlled conditions, with students reporting on and analyzing such experiences.*

More than the work-study program of Antioch College is implied here. A systematic use of work experience as part of the learning process with both participation and reporting being involved in evaluation of course credit is intended. Students need greater opportunities to emerge from academic isolation, and the Commission is indebted to Provost W. Lewis Hyde for a thoughtful presentation on the utility of students sampling real life work situations. The enthusiasm for a given occupation or profession gained or reinforced through work experience may substantially increase the motivation of students for academic preparation toward their eventual career goals. Conversely, acquaintance with the realities of a profession may save an individual from a life of unhappiness if those realities are seen before a total commitment is made through long years of purely academic preparation.

### 2. EXPANDED PROGRAMS OF STUDENT INTERNSHIPS

The student internship is hardly a new idea, but the expansion of internships to University affairs may very well be. As pointed out in Section One of this Report, the University is part of society and is itself a microcosm of general problems, all of which need to be addressed. The Commission is recommending that the schools and colleges participate in providing and supervising a series of internships in University and college affairs. Some of these can be provided and supervised on the University level (*see* Proposal 3, page 4) and some on the school and college level. There is enormous room for student contributions toward understanding and coping with some of the serious problems of higher education. The recommended internships would provide an opportunity for students to bring their disciplinary expertise to bear on those problems. The Commission recommends that the Director of Academic Development coordinate a University effort to fund such a program of internships.

### 3. INVOLVEMENT OF OUTSIDE PROFESSIONALS IN THE LEARNING EXPERIENCE

*Use of professionals from outside the University community to enrich and enlarge the learning experience.*

In the same spirit in which the Commission recommends work-study experience and internships, it also recommends the expanded use of resource people from outside the University in undergraduate educational programs. Businessmen, community workers, and doctors, for example, can enrich the experience of students and assist them in evaluating career alternatives. These same persons can give character and definition to special programs such as premedicine, urban studies, etc., by teaching, serving on advisory committees, and counseling. Each school and division should look to the creative use of such persons in their educational programs.

### 4. INTER-UNIVERSITY CONSORTIA

*The creation of inter-university consortia and educational arrangements with metropolitan area cultural institutions.*

The Commission has not been able to examine these possibilities in a practical way, but it seems clear that they must receive more attention in the future. Given the financial restraints on all higher education, and the wealth of educational and cultural institutions in our area, colleges and universities cannot continue to duplicate and compete in all their educational programs or to ignore the other resources of the city. Area planning of resources must be undertaken, and the University should take the initiative and cooperate in these endeavors.

## D. Curricular Challenges

The Commission has explored a number of factors relating to the curriculum and enumerates some of them here:

### 1. ACADEMIC GUIDANCE

*Recognition of the importance of academic guidance for learning.*

Academic guidance and program building are an increasingly important part of the learning environment. With the decline of requirement structures and the parallel provision of increased options and opportunities for students, the development of a rational framework for a student's study program has emerged as one of the vital academic roles. A detailed rationale and a set of specific proposals can be found in The Advisement Role, page 57. This issue is also vigorously addressed in the report of the Washington Square College Educational Policy Committee to the May 1971 faculty meeting.

## 2. SIMULATED LEARNING EXPERIENCES

Several institutions, including some departments within the University, have had excellent results with role-playing and simulated experiences built around problem-solving situations. This approach utilizes the classroom in a different way and intensifies student involvement and understanding.

Descriptions of a variety of approaches to simulated learning experience are available in current literature and in the Commission's records.

## 3. TASK FORCE LEARNING

This technique, tried recently in a course at Columbia University, puts a group of students and faculty members together as a team to approach some problem that may involve a series of disciplines. The distinctive part of this technique is the fact that all, or a major part, of the student's "class time" is involved and the task force problem constitutes nearly his full academic commitment for the period covered. Concentration on areas of study long enough to be able to come to terms with them without the usual fragmenting of course offerings seems an important learning quality for some students and this method offers that possibility. The same concept might very well be applied to disciplinary studies, in which blocks of the year are assigned completely to one undertaking, rather than altering and realtering four-course and five-course loads.

A variant on this theme was undertaken by an interdisciplinary committee of three professors under the chairmanship of Professor Louis W. Koenig in Washington Square College. The participating students were involved in a research project on the Department of State for which they received a total of 16 credits from three participating departments.

## 4. SMALLER-UNIT INSTRUCTION

The utility of introducing more focused and complete attention on an educational experience over a time period has a reciprocal: not all educational experiences need occupy the precise boundaries of a semester. Experiments with "mini-seminars" at Rutgers University and at our own University College indicate that some educational matters lend themselves to shorter time periods. Faculty members should have some reasonable options and administrative devices for fitting the needs of their course offering to appropriate time spans of four weeks, eight weeks, etc., within the traditional semesters.

## 5. THE IMPORTANCE OF LEISURE

Higher education seems more successful at preparing and certifying individuals for careers than at providing them with the means to achieve a sense of fulfillment. As changes in the work-structure and habits emerge in society, the quality of life becomes an important consideration. The University needs to concern itself with avocational opportunities for students that will counteract the atrophy of passive participation in the arts, music, sports, dance, films, etc.

The Commission recognizes that this component of undergraduate education is largely unidentified and unexplored, but is convinced that it has emerged as a challenge to higher education today. Educational options must encourage students to find avenues for personal fulfillment. The Commission believes that mental health and the full life are important educational considerations. The Commission can now only identify this challenge of the use of leisure and point to the increasing importance of each school and division exploring it more fully.

## II. EXPANSION OF THE LEARNING ENVIRONMENT

If students as learners are the focus of undergraduate education, then we need to understand these learners better—their variety, interests, motivations, and talents. The Commission has attempted, through its statistical survey of students, discussions with students, canvassing of dean's offices, and consultation of recent student attitudinal surveys conducted by student groups at the University Heights and the Washington Square Centers, to show that such an understanding of undergraduate students is possible. It has further concluded that more extensive work, which it is hoped will include in-depth student interviewing, is needed. (*see also* Appendix Two, page 73).

The focused educational programs of the several schools offered in a variety of formats will assist in providing new stimulation and real learning for students. Further considerations in addressing the issue of developing and expanding the present learning environment of the University include:

### A. The Institutional Environment

#### 1. CLASS SIZE

There is no reaction more consistently expressed by students of this and other universities than dismay at the large size and impersonality of many of their classes. The relative effectiveness of small versus large classes is still being argued in educational research, but students have already arrived at an answer. For example, in response to the statement —I have found large lecture courses a satisfactory educational experience —students surveyed in this University responded: 10.7 percent, most of the time; 38.2 percent, sometimes; and 51.1 percent, rarely.

The Commission does not recommend that all classes be seminars; this makes neither financial nor educational sense, as properly developed lecture courses do have an important educational role. However, to base the major part of the undergraduate educational experience on lecture courses indeed seems to place the student in a continuously passive role as a learner. The fact that students sometimes have difficulties in recitation and participation in small classes is often because of their lack of such experiences in the past. The Commission is also aware of student-faculty ratio statistics in this University and elsewhere that are adduced to indicate that student perceptions of the number of large lecture courses in their careers are inaccurate. One need not contest such evidence to point out that it is the *consistency* and *availability* of some small class experience to students *in general* that is at issue and not the fact that small classes are available in some departments, laboratories, honors programs, or underenrolled offerings.

The Commission therefore recommends:

*a)* that departments and programs examine the purposes and effectiveness of their large lecture offerings with a view to enhancing their educational impact on students.

*b)* that colleges, departments, and programs put the highest priority on providing some consistent seminar experience, especially in the major field courses and on the freshman level. Proposals such as the Freshman Seminar Advisory Program (*see* page 59) help to address the need of incoming students for an educational experience that differs measurably from high school.

Providing consistent seminar experience on beginning and major levels is expensive, but it is an expense that cannot be avoided without serious damage to the educational role of the University. Some schools and divisions have been relatively successful in providing limited small-class experience for upper-division students in honors courses and departmental seminars, largely because these schools and divisions place a very high value on such preprofessional preparation. They must now accept the same priority for all incoming students if the students are to be engaged actively in the learning process.

## 2. MINORITY STUDENT NEEDS

Minority group students have contributed significantly to the learning environment of this and other universities. They have played a catalytic role in raising pointed questions about traditional practices, and they have demanded a focus to their educational experience that challenges many of the basic principles of undergraduate education. A proper learning environment is one that recognizes the milieu in which the University operates and is responsive to the needs of students from varying backgrounds. More than access is involved. The Commission believes that each program and division has an obligation to create an atmosphere of learning that is responsive to all students. For minority group students it is very important that:

*a)* the recruitment of new students ensures the presence and visibility of students with comparable social experience and cultural background;

*b)* each department and program pursue, and expand, the recruitment of minority group faculty and staff to provide a better balance than now exists;

*c)* the University consistently examine curricular programs to see that they reflect the pluralistic nature of American society and the student body;

*d)* the University stress the development of special courses and programs emphasizing the cultural contributions, future needs, and immediate problems of minority groups;

*e)* the University provide an environment that recognizes the affective as well as cognitive and educational needs of minority groups.

## 3. LIFETIME LEARNING

The Commission believes that in developing an environment at the University for lifetime learning opportunities for undergraduates, efforts should be made to:

*a)* open up daytime undergraduate programs to older students;

*b)* create an Advisory Committee on Evening Programs to examine the problems and possibilities of evening bachelor's degree programs;

*c)* examine the implications of summer sessions for older students and the means to maximize opportunities (*see* suggestions under Summer Sessions, page 25).

The idea that undergraduate education is uniquely suited to young persons between 18 and 21 years of age is open to serious question. The evidence of the returned veteran, the increasing number of people who have postponed undergraduate education for Peace Corps or other service, and the older student now enrolling for undergraduate study shows that other age groups can perform with distinction. The notion that for all students college should follow immediately upon high school has no educational merit. The learning environment at the University must be expansive enough to accommodate the rhythm of older students seeking an undergraduate degree in one of the regular daytime programs.

The Commission is also aware that most older students in an urban area who pursue an undergraduate degree must do so in the evening hours, and it is here that special problems exist for the University. The School of Continuing Education provides an admirable evening program, but it is difficult for a student in that program to move progressively toward a bachelor's degree. Therefore, an *Advisory Committee on Evening Programs,* composed of people with special interests in this area, should examine the problem. The Commission offers the following observations and suggestions to such a committee:

There is an increasing constriction of the learning opportunities available in the evening at the Washington Square Center. The possibilities of earning the A.B. have diminished with the decision some years ago to phase out the evening program of Washington Square College. So, too, there has been a shrinkage in the evening courses offered through the University's Commission on Coordinated Liberal Studies. The Commission recognizes that this constriction of evening programs is due, in part, to the lack of financial viability of the evening program, a condition that resulted from a vicious circle of reduced registration causing reduced course offerings causing reduced registration. The Commission appreciates the emergence of new priorities in Washington Square College, accompanied by the need to husband limited resources, that encouraged the college to move out of evening courses.

Given these factors plus the current precarious financial condition of higher education, an Advisory Committee on Evening Programs at the University should explore the possibilities of expanding and building on those evening programs at Washington Square that are academically sound and financially viable, namely, the Associate Degree Programs. The suggestion is in the spirit of the Carnegie Commission study, which reflects both the growth of, and need for, two-years programs.* Financially sound since their inception, the evening Associate Degree Programs

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**The Open-Door Colleges,* the Carnegie Commission on Higher Education, June 1970.

were created by intra-University committees. If it is financially impossible to mount anything like a conventional bachelor's program in the evening, the Advisory Committee on Evening Programs might respond to an upper-level independent study program proposed by Associate Dean Herbert Jaffa (*see* "Program for an Evening A.B. Program," Appendix IV). His program would provide an opportunity for the graduates of the Associate in Arts Degree Programs, most of whom continue toward the baccalaureate, but who now must necessarily do this outside the University. More significantly, in terms of numbers, it would provide an opportunity for working people throughout the city to continue their education toward the bachelor's degree at New York University, an opportunity very much a part of the historic origins of the institution.

### 4. THE COMMUTING STUDENT

Special efforts must be made by schools and programs to provide a stimulating learning environment for commuting students. There may be opportunities for involving such students in dormitory educational programs, and surely more congenial study rooms should be available. It is hoped that the resources of the Bobst Library, now nearing completion, will provide a welcome center for study at Washington Square. Further study of the particular needs of commuting undergraduate students is indicated if their educational experience is to be made as complete as that of residential students.

## B. The Use of Facilities

### 1. THE LIBRARIES

*The Libraries as Learning Centers:* The use of seminars and study programs in library and research skills is strongly encouraged by the Commission. In addition, the libraries are the natural centers for certain forms of independent study and for the provision of expanded resources in educational technology. Such programs, centered in the libraries, should include use of both regular faculty and library staff. (For more on this, *see* Independent Study Professor, page 49). Some of the recommendations on educational technology in Appendix IV are also directed at library resources. The library facilities must also be responsive to special student needs; a special Afro-American research section, for example, should be available under the guidance of a curator for student consultation and study.

*Library Facilities:* The Commission believes steps must be taken immediately to transform the Gould Memorial Library at University Heights into a serviceable undergraduate library. If prospects for a new library at University Heights are dim, then present facilities must be renovated and reorganized to provide open stack access, study rooms, and reserve rooms. This becomes a vital issue in making recommendations for the development of a learning environment; such recommendations are illusory if the basic learning facility, the library, is not serviceable for undergraduates. The immensely increased facilities of the Engineering Library and the construction of the Bobst Library at Washington Square throw the needs of the Gould Library into even sharper relief.

### 2. DORMITORY LEARNING

*Where appropriate and possible, the Commission believes dormitories should be used as learning centers if there is genuine student interest in having courses offered there.* Dormitory assignment might well be part of an Open College program focused on a particular theme as suggested in Section Two. In such a program the dormitory would clearly be part of the learning environment.

The future of dormitories at the University seems in doubt, unless they begin to contribute to a real sense of community founded on educational interests. As one opportunity to implement some of the recommended criteria of size and community involvement that seem so important in undergraduate education, the development of courses in the dormitories offers a path for experiment. The Commission notes with interest the work of Associate Professor James P. Carse and the students of the Brittany dormitory in this area. The results of the Commission's Student Survey (Appendix I) indicate that schools should proceed with some care in this direction, since it is not universally accepted that courses in dormitories are desirable. Resident student interest in such programs should be clearly determined.

## C. Institutional Practices

### 1. THE CALENDAR AND "JANUARY PROGRAM"*

Following up the calendar proposals being considered by the University Senate Calendar Committee for a January Program between semesters: the use of this January period requires close planning and the use of many University resources, including library staff, educational technology, assigned faculty members, etc., if the time is to serve as an expanded learning period.

The January Program could provide an institutional focus for intensive language training, study abroad, study at other educational institutions

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**See also* Acceleration of Four-Year Degree, §*e*), p. 17.

and special programs in public agencies, short intensive courses in the style of "mini-seminars," simulated learning experiences, and independent study programs.

### 2. GRADING

The Commission emphasizes the wide variety of student and faculty attitudes toward the idea of grading and grading systems. There is some feeling that the issue of grading is really secondary to a series of more central issues—the quality of programs, the quality of teaching, the availability of student options—and that it is often the focus of complaints that stem from deeper roots. The Commission therefore only suggests:

*a)* that grading systems and styles should reflect the educational missions of colleges and programs and that a variety in systems and in experiments is to be expected. Part of the self-study of the colleges and programs of the University should address this issue of grading.

*b)* that colleges and schools examine the use of Honors-Pass-No Credit for grades during the freshman year for those students who opt for such a program and are uncertain of their educational goals.

This proposal addresses the issue of students who come to undergraduate education with a program objective but perform poorly in their first year and are forced to a reexamination of their goals. From this point on they wage a continuous struggle to escape the grade average imposed by an initial educational experience that should have been more tentative and exploratory. We believe that colleges can respond with some imagination in this area.

An intriguing variant on this proposal, but one that requires further study, would award academic credits from 0 to 5 in lieu of grades in courses in the freshman year, depending on the amount and quality of the student's achievements.

## D. Special Areas

### 1. EVALUATION OF "A" COURSE PROGRAMS*

*The Commission recommends an evaluation of the effectiveness and needs of the Coordinated Liberal Studies Program ("A" Course Program) at Washington Square.*

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*A Program of Coordinated Liberal Studies is offered to students in the School of Education, Washington Square College of Arts and Science, and the College of Business and Public Administration, through the University departments in arts and sciences, in a consolidated program approved by the faculties of the three schools. These "A" courses constitute approximately half the requirements for graduation in the undergraduate divisions. The courses in the "A" program are equally available to students of the three undergraduate schools, subject to the particular regulations in each school. For instance, some of the courses are basic and required in all schools; others are required in some curricula but are electives elsewhere; still others are largely elective.

The Commission notes the development of the Commission on Coordinated Liberal Studies as an educational administrative unit and sees the benefits of

*a)* a full-scale independent evaluation of the day and evening "A" and "A/W" programs after six years of operation. This evaluation has been suggested by the Commission on Coordinated Liberal Studies (CCLS). The Commission on Undergraduate Education endorses it as being timely and appropriate.

*b)* addressing the problems of student identity in the "A" program, which are recognized by the CCLS. This might be approached from the point of view of building greater lateral relationships between courses taken in the "A" program and courses taken in the school of registration during the student's first two years.

## 2. OPPORTUNITIES PROGRAMS

The Commission believes that this University, like all others in our society, has an obligation to provide educational opportunities for students from minority group communities. The University's urban setting makes this even more imperative. The challenge is to take these students from where they are to the level of performance necessary to carry on a normal degree program. Reaching out to these groups requires careful consideration of financial aid and a sensitive measurement of each student's capability to do academic work. However, the Commission recognizes that remedial programs and a special status related to dependence on financial aid can create a feeling of exclusion. Students from minority groups need to feel fully welcome and of equal status in their academic programs.

At the same time, minority group students must not feel "lost" in the large impersonal nature of our undergraduate schools or feel victimized by an administrative bureaucracy that seems inscrutable and complex. The Commission is anxious that this should not happen to any student and for that reason endorses degree programs with a thematic emphasis, with faculty members and students concentrating on shared interests.

Evidence from current opportunities programs, including the one directed by Lewis W. Clarke in the School of Continuing Education, shows students from minority groups are dedicated and conscientious, and the sacrifices they have made in coming to the University prove a high degree of commitment to their work. A strength of these programs has been in providing an identity for the students in sharing common problems and working together in the evolution of the curriculum as well as program administration. The selection of staff and faculty members able to identify the special needs of minority groups and able to work creatively with them is clearly a part of the success of these efforts.

The Commission asks all undergraduate programs at the University to be certain that their admissions, financial aid, counseling, and support programs ensure full opportunities for minority group students and that all academic programs take the intellectual needs of minority group students into account.

### 3. DEVELOPMENT OF A DAY ASSOCIATE IN ARTS TRANSFER PROGRAM IN THE SCHOOL OF CONTINUING EDUCATION

A junior college liberal arts day program should be examined for the younger, under 21, recent high school graduate not immediately admissible to the University's senior colleges or the present associate degree programs. These students should be able to transfer into a regular baccalaureate program if they prove qualified after the first two years. Such a program would permit selected high school graduates to prove their ability to do upper-level work, either in one of the senior colleges of the University or in an upper-level seminar and independent study program (*see* Lifetime Learning, page 37).

Materials relating to such a program are readily available: reports of former Vice President David Robinson on the Boston University Program, the report of Associate Dean Herbert Jaffa on the curriculum and budgetary implications of such a program at this University (*see* Appendix IV), and Assistant Chancellor Arnold Goren's "Proposal for a Weekend College" (*see* Appendix IV).

Such a program would reflect an increased sense of adventure and a concern on the part of the University to identify and recruit other types of undergraduate students. This should be a natural impulse of an urban private university that from the beginning has organized itself in "the public interest." In addition, the reports cited above indicate such a program would make financial as well as educational sense in this critical time for the University.

### 4. FOREIGN LANGUAGE INSTRUCTION AND ORAL COMMUNICATION

*The offering of intensive oral communication in modern foreign language to complement existing courses.*

The Commission believes the provision of opportunities for students to become competent in spoken languages is an important priority in an era of declining language course enrollment. As more students travel throughout the world, and the low cost of travel provides many opportunities for visits to foreign lands, the value of knowing a foreign language is becoming more apparent. Moreover, a significant number of United States residents are Spanish-speaking. In addition, countries to the immediate south would be far more accessible and communication improved if more college graduates knew at least oral Spanish. The old values of knowing a foreign tongue to understand one's own language better still apply today.

The Commission encourages the University to provide new methods of learning language, including:

*a)* Laboratory methods and intensive instruction through residence houses and through voluntary and lending tape laboratories.

*b)* Languages offered at different levels of oral competence.

*c)* Short intensive work on oral communication.

*d)* Courses that build on reading and writing a foreign language.

Many students who plan their summers abroad take intensive language courses outside the academic course offerings, for which they pay additional sums. The Commission is also aware that the development of a working knowledge of a language is often sufficient to stimulate a further interest in perfecting its use. The University could pioneer in offering language training for students not prepared to pursue the full range of current course offerings, A declining student interest in languages in this country might be reversed with greater emphasis on oral language training and introductory courses that produce usable conversational results in a foreign tongue, for credit. Those who learn to speak a language first, often go on to learn to read or write it, while the reverse has rarely been true. At the same time, students who are impatient for usable results may be attracted to language study with beneficial long-term educational results.

Intensive oral communication language courses can be arranged for those entering professions whose performance will be improved by such knowledge—e.g., doctors, urban lawyers and teachers, nurses, and social workers. Such courses could carry credit measured on verbal fluency and oral comprehension.

The University has an extensive foreign student population. Many of these students would welcome an opportunity to work with other students in oral communication skills. Such emphasis would provide opportunities for students with language skills and for foreign students to receive course credit for participation as teachers and instructors.

## III. EDUCATIONAL TECHNOLOGY

*The Commission recommends the establishment of an Intra-University Committee on Educational Technology to examine current resources, coordinate their use, and formulate plans for future development and utilization.*

The Commission is impressed with the potential of educational technology in expanding the learning resources of the University for students. The Commission emphasizes that it sees such use as supporting and expanding the teaching-learning environment, not replacing it. There is an important role for educational technology in assisting independent study, widening classroom experiences, adding new dimensions to curricula, and contributing to teacher development. The Commission also is greatly impressed by the large percentage of students in its survey who would welcome the use of more technological aids to teaching, such as video tapes, audio tapes, and closed-circuit television. Some 70 percent said they were in favor of this development.

At the same time, the Commission is struck by the lack of coordination in present University efforts in this area. A coordinating responsibility must be exercised by a committee of those with interest and expertise. The Commission has available a list of the people in the several schools who have demonstrated such interest in the various aspects of educational technology.

The Intra-University Committee should consider the following questions:

1. What are the present resources available across the University? A catalog of such resources should be prepared and widely distributed so that faculty members will know of existing opportunities.

2. What minimum resources are needed to provide a two-center (University Heights and Washington Square) program of support in educational technology for the development of faculty and student interest?

3. How can improvement committees for teaching in the various divisions make use of educational technology?

4. How can the University reach a larger audience and other markets, including industry, through the use of new technology?

5. What role does New York University wish to play in relationship to city and state planning, especially in educational television?

6. What audio-visual aids are important to develop and to encourage?

7. What contacts with concerned companies can be developed to establish pilot projects with their assistance?

8. What is the feasibility of pilot groups working in the libraries, and what is the role of educational technology in library facilities in general?

9. What is the extent of the "clearing house" function of the University for educational television, and where should the purchasing and development center be located?

The Commission does not recommend computer-assisted instruction at this time, but this area must be under constant examination for the future. At the present, it seems far too expensive to be practical.

The Commission calls attention to the position paper and specific recommendations of its December 1970 Progress Report, now contained in Appendix IV. The Committee exploring technology for the Commission over the past year has been very active and an extensive body of information, research, and suggestions is now available to the proposed Intra-University Committee on Educational Technology.

# Section Five: Teaching

Teaching is the most important means provided by undergraduate education for the development of a learning environment for students. Reports of national commissions and foundations, and most recently the report of a study group funded by the Ford Foundation and endorsed by the United States Department of Health, Education and Welfare (The Newman Report)*, have consistently emphasized the necessity for increased recognition of the teaching role in higher education. The Commission recognizes this as a high priority and is reinforced in this view by the Student Survey.† The Commission also recognizes that vague generalizations on the importance of teaching, no matter how many times they are printed, are doomed to remain idle rhetoric unless the complicated array of factors involved are really addressed. A priority, such as *teaching should be perfected, recognized, and rewarded,* can never be approached by one simple prescription. Each element involved must be isolated and addressed, and these include, among other things, the determination of faculty roles in undergraduate education, the evaluation of teaching, the teaching reward mechanisms that operate in the University system, the importance of academic advisement, and the training of college teachers.

## I. FACULTY ROLES

### A. Examination of Faculty Roles

*The Commission recommends that the basic principle of the School of Education Faculty Evaluation System be adopted by the individual schools and colleges.* It provides that, beginning after the third year of service in the School of Education, the faculty member and those responsible for his evaluation come to agreement on role definition and procedures for evaluating the faculty member's success in achieving these anticipated goals over the next two-year period. The progress made in reaching the agreed upon goals should be examined annually. Until such role definition has been achieved, a more general faculty evaluation criterion should be used.

Just as students come to undergraduate education with a varied set of abilities, expectations, and motivations, so also faculty members

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*United States Department of Health, Education and Welfare, *Report on Higher Education* (The Newman Report), March 1971 (Washington, D.C.: Government Printing Office, 1971).

†*See* Survey of Student Opinions, Appendix I.

come into colleges and programs with a varied set of abilities, motivations, and values. Part of the difficulty in making determinations concerning the effectiveness of individual faculty members stems from the extensive, one might say unrealistic, set of expectations that surround teachers. Expectations for faculty include excellent lecturing, imaginative seminar leadership, sensitive academic advisement, solid guidance for independent study, creative research and publication, active participation in college and University governance, and productive community involvement. While one might wish that every faculty member had all these characteristics in the highest degree, it is clear that abilities and interests vary enormously from category to category, and it is also clear that the careers of faculty members develop and evolve over the years.

The Commission recommends, therefore, that categories of faculty performance be established, and that, after a period of three years of introduction to a program or college, a faculty member agree with his chairman or director on the areas of development that he would most like to pursue in the coming two years and in which he would most prefer to be judged; such discussions should be taken to the dean for college or program planning.

The Commission believes that a more individualized approach to faculty skills and motivations will be beneficial:

*a)* in enabling a college or program to plan its faculty resources in an efficient and productive way;

*b)* in enabling a faculty member to emphasize his abilities and respond to his motivations, while not preventing his future development in other areas;

*c)* in focusing the questions of evaluation specifically and individually while at the same time delineating goals;

*d)* in providing students with an opportunity to encounter their faculty under the best conditions.

## B. Descriptions of Faculty Roles

*The Commission recommends to the University Senate's Committee on Educational Policies that the following categories of faculty service be examined for future development.* At the same time, the Commission emphasizes that no categories need be viewed as exclusive and that faculty members may well plan their career development in several areas.

1. *The Counselor-Professor:* The need for such faculty members grows each year; with the weakening of requirement structures and the expansion of student opportunities, the development of a sensible and useful academic program for the individual student becomes just as vital as the quality of the specific work he undertakes. The coherence and purpose of a student's academic life govern his attitude toward any part of it. Consequently the teacher-counselor's role is an extremely important one and must receive a high rank in the faculty scale.

2. *The Lecture Professor:* Outstanding scholar-lecturers, whose reputations and abilities in this forum have been established, should be utilized across the University to provide the lecture "events" for students that lectures are truly meant to be. Not every faculty member is a lecturer, but those who are provide an exciting stimulus and a substantial resource to the University as a whole. Those who cannot lecture should not; those who can lecture with skill and insight should make these skills and insights available widely throughout the University.

3. *The Seminar Professor:* There are faculty members whose abilities are best expressed in the seminar style, they relate well to individual students and have skills in small group development. Such skills may or may not be accompanied by large-class lecturing abilities or interests.

4. *Independent Study Professor:* There are many faculty members particularly equipped by personality and wide interests to direct study, research, and writing on an independent basis; this may often be combined with one of the categories of faculty service cited above. Such professors would have special relationships to the library facilities (*see* page 39). In addition to the traditional areas of independent study, some professors might be active in the development of internships, work study, community involvement, and other programs for which students may earn academic credit.

5. *Research Professor:* Some faculty members are most at home in the development of significant scholarly contributions to their disciplines, usually in the form of publications; these professors may share some of the characteristics already described or may make their contribution by involving advanced undergraduate students in the faculty member's own scholarly research.

6. *Professor of Academic Development:* Faculty members who choose to involve themselves in the development of new programs either

within or without their present departments or colleges should have an opportunity to do so and to be evaluated on the basis of this contribution.

## C. Use of Persons from Outside the University in Academic Programs

*The Commission recommends that the schools, colleges, and programs make effective use of the services of persons from outside the University community.*

The University now recognizes the importance of faculty service to the community. It would be well to recognize also that individuals not traditionally considered academicians (businessmen, bankers, doctors, community workers, and government officials, for example) can enrich the experience of students and help them to make judgments about their roles in our society. Such individuals can play an important part in establishing the programmatic quality of education, as in premedical programs, urban studies, etc., through teaching and serving on advisory committees and by student counseling.

## D. Distribution of Committee and Administrative Assignments of Faculty

*The Commission recommends that each school and college examine its practice in distributing committee and administrative assignments to faculty.*

The Commission suggests the development of individual college formulas for committee and administrative services by faculty members. Such formulas have been established and work reasonably well in other institutions. Too often in the University these assignments are borne by a relatively small number of individuals, which dilutes the faculty member's creativity and restricts governance matters to a few, while permitting many faculty members to omit such service altogether.

## E. Faculty Guidance on Administrative Processes at the University

*The Commission suggests that the Director of Academic Development* provide, each year, a series of seminars in the individual schools and colleges on the administrative processes and procedures at the University by which faculty members can be assisted in their educational tasks;* such services are, after all, the primary role of administrators. In a University this large, it often takes years of hit-or-miss for faculty members to determine how things are effectively accomplished.

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**See* Section One, p. 4.

## II. TEACHER EVALUATION

The area of teacher evaluation has long been, and continues to be, one of great discussion and little action. Research and publication have remained the "hard" areas in which determinations of faculty creativity and depth have been more easily made with the aid of national groups of scholars in a discipline. Teaching competency, on the other hand, has long been considered a "soft" area, in which criteria and judgment are infinitely varied and in which no solid evidence could be relied on nor any outside group of experts brought to bear in a practical way. Indeed, the Commission has often heard the twin dictums that "teaching is unevaluatable" and "teachers are born, not made." Given this condition, it is hardly accidental that research and publication are given heavy weight in determinations of salary, tenure, and teaching preferences, and research is described as the singular guarantee of continued liveliness in a faculty member. It is apparent that most schools evaluate what is most easily evaluatable.

The Commission recognizes the role of research and publication as an important means of determining the intellectual depth and vitality of a faculty member and emphasizes the intimate connection between scholarly research and meaningful intellectual activity in the classroom. Research and the discipline of organizing it for presentation to one's colleagues help a teacher to bring his students to the forefront of knowledge and to provide them with fresh insights and creative organization of information.

At the same time, the Commission asserts that, while judgments about additional indicators of intellectual depth and vitality in the classroom may be difficult to make, it is not impossible to do so. The problems of enlarging the opportunities to judge additional criteria of faculty performance have not yet been fully addressed in higher education.

The Commission makes the following recommendations as a beginning:

### A. Faculty Records

*The Commission recommends that pertinent materials on teaching produced by the teacher himself, by students, and by colleagues should be included in a consistent way in faculty records in each school. (This follows the recommendations of the Carnegie Commission.*)*

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*Carnegie Commission on Higher Education, *The Open-Door Colleges,* June 1970.

The teacher must play a role in his own evaluation and should make contributions, and have access, to the materials concerning his teaching. The teacher should be provided with an opportunity to identify his own development in the classroom and in governance assignments. Such a self-critical log of accomplishments and contributions should include the teacher's personal goals, his methods for reevaluating and presenting knowledge, his experimentation with different techniques, and his own evaluation of effectiveness.

The development of new courses and programs involving interdisciplinary and team teaching, and other forms of faculty cooperation, means that the evaluation of such teaching is becoming a communal effort; and reports on the effectiveness of such programs by participants can be a productive new form of teaching evaluation.

The kind of evidence that ought to be organized in a teaching file has been summarized by one dean in the University around the theme of the distinction and singular character of the teacher's contribution. One should seek signs of unique approaches to the teaching challenge, an aura of excitement; in short, evidences that the teacher is a *learning* as well as a *learned* person. Did the teacher extend himself to prepare supporting materials for his class; did he arrange or rearrange the knowledge available to him in a unique way that provided insight for his students; were his reading lists imaginative and did they reflect recent developments? In addition, what relationships did the teacher recognize with other offerings in his department, area, or program; what evidences were there that the teacher was aware of information on local and national levels concerning teaching in his own area; and what evidence is there that he had made creative contributions to his own area? If each school and division began to address even these simple themes, the issues concerning judgments of teaching would seem much less mysterious.*

## B. Student Evaluation of Teaching

*The Commission recommends that student evaluation of teaching and courses be organized in each college and school on a permanent and consistent basis by the creation of an Office of Student Evaluations run by someone as part of their administrative duty and supported by a student-faculty committee on policy.*

The reasons for this proposal include:

1. The recognition of the importance of student evaluations.

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*For further reading, see the *AAUP Project to Improve College Teaching, Special Report #2* (Salt Lake City, Utah, 1970), p. S-2.

2. The creation of a permanent and consistent system, one that is organized *each semester* and based on a *consistent set of criteria,* in order that the cumulative role of such evaluations may be maximized and the results given the substantial weight they deserve. Evaluations that are done only every few years on shifting criteria, or even those that are made in one semester only, are too easily set aside and do not bear the proper weight. (*See* the E.T.S. Student Instructional Report, Appendix V.)

## C. Classroom Visitations

It has been suggested to the Commission that the departments and programs in the schools and colleges institute a program of classroom visitation on the part of colleagues where this is not now done. Such a system has become an integral part of the faculty evaluating mechanisms of the City University of New York.

The Commission has discovered that the practices and the feelings in this matter differ substantially college by college and, indeed, department by department. Here it can only suggest that this device be examined by departments and programs: where such visitation is accepted by consensus as an important and useful practice, it is successful; where it is viewed as threatening and abusive of academic freedom, obviously it is a source of discord.

## D. Teacher Development

*The Commission proposes that the schools and colleges organize the resources for teacher self-evaluation and development, especially utilizing the resources of educational technology and of experienced teachers with recognized success.*

Student reactions indicate that some faculty members, even with the strongest credentials and highest motivation, have severe problems in communicating with their students. The results of the student survey show that students were satisfied with the type of teaching they have experienced at the University: 25 percent most of the time, 54 percent sometimes, and 18 percent rarely. This suggests that schools and colleges should address the need for resources for teacher development.

These resources might include taped lectures for discussion and review, with special attention to the areas that the Project to Improve College Teaching of the AAUP, cited earlier, has designated as gaps across the nation: skill in lecturing, ability to identify objectives, ability to train others, skill in handling discussions. Experienced and successful teachers could assist colleagues in improving their teaching abilities along these lines.

# III. REWARD STRUCTURES

The area of reward structures for teaching and for program and course development is equally complex. If one devises methods to strengthen the training of college teachers and struggles with the problems of identifying and judging teaching performance, it is absolutely necessary to come to terms also with the problems of incentives and rewards for faculty involvement in these areas. The Commission has listened with gratitude to the suggestions of faculty members who have encouraged an identification of the structures that give a high priority to research and publication. Once those structures are known, it might be possible to determine in what ways similar practices could encourage interest in teaching and course development.

Therefore, the Commission recommends the following:

## A. Publication of Report on Teaching and Program Development

*That the Director of Academic Development* produce and circulate a regular report to the University community and the academic community across the country on significant teaching and program developments at New York University.*

This will indicate the value the University places on such efforts, encourage relationships among faculty members of divisions, and help to create the national recognition (and potential for mobility) that is so much a product of research and publication.

The Commission makes this recommendation because it believes that teaching developments deserve as much recognition as the publication achievements cataloged regularly in *Internal* (a newsletter to University faculty members and administrators) and because a great deal of unrecognized productive work goes on in teaching development across the University. It is also important now to recognize that a faculty member's role in developing new teaching methods, course offerings, programs, team-teaching, etc., is becoming an important personal asset in determining his prestige, attractiveness, and mobility in an era of contracting faculty appointments.

The University must take responsibility for developing these aspects of the reward structure: the internal recognition of good work, the provision for national recognition of contributions to teaching and program or course development, and the prestige that must be associated with effective teaching. (Good examples of journals giving national recognition to teaching developments are the *American Journal of Physics,* published by the American Association of Physics Teachers, and *The Teaching of History,* published by Notre Dame University.)

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**See* Section One, p. 4.

## B. Exchanges of Teaching Assignments

*That, as suggested by the AAUP Project to Improve College Teaching, the schools and colleges of the University foster an exchange in teaching assignments among faculty members in different colleges and universities as well as within our own institution.*

This proposal seems especially useful and practical at New York University, where the existence of different educational programs will permit a faculty member to undertake new teaching experiences with new students for short periods of time and enable him to bring a fresh perspective from outside the school or college concerning his teaching skills. The Commission believes it is equally important to provide the same opportunities to teach for short terms at other institutions such as are now so readily available to those with outstanding accomplishments in research and publication.

## C. Financial Assistance for New Courses and Methods

*That financial assistance should be provided by the University for the introduction and testing of new courses and methods in each of the schools and colleges.*

1. *Innovation Funds:* There are now research funds available in several places in the University for the support of research and writing projects; it seems unbalanced and out of character for the University to ignore similar incentives and recognitions for teaching developments. One college in the University is in the second year of offering assistance to classroom innovations from a special fund, and several productive proposals have emerged therefrom.

2. *Teachers-in-Residence:* The Commission believes that the schools and colleges should provide semester or year appointments as "Teachers-in-Residence" without specific course requirements to teach, so that professors may experiment and develop alternative course structures and methods. Such a device will reward good teaching by enabling a faculty member to do some teaching in an open environment and to test some of his attitudes and expectations.

3. *Summer Grants and Leaves:* Each school and college should develop a system of summer support for course and teaching development, and sabbatical leaves should be recognized for such academic development efforts.

4. *Teaching Awards:* The Chancellor's Office should develop a more extensive system of recognition awards for excellence in teaching.

## D. Emphasis on Teaching in Reward Structure

*That salary increases, promotions, and tenure decisions in undergraduate education should be made with a strong emphasis on the teaching role.*

The Commission realizes that such a statement is platitudinous and that teaching has equal place with research and campus citizenship in the *procedural* descriptions of faculty review at the University. The perception of most students (80.4 percent), as revealed in the survey, is that teaching ability should be the single most important consideration in rewarding faculty. Still, the actual importance of teaching excellence in faculty evaluation is determined by the amount of effort given by departmental and college administrators in encouraging, understanding, and evaluating teaching. University administrators, therefore, must, as one of their primary duties, ensure that such encouragement, understanding, and evaluation go on in a consistent way and that their own determinations in matters of faculty rewards include such encouragement and evaluation.

## E. Studies of Teaching Effectiveness

*That the central administration, specifically the Director of Academic Development,* encourage foundations to undertake studies of teaching effectiveness and course and program development for undergraduates at all institutions.*

National studies, reflecting the previously described disposition to measure the measurable, have consistently emphasized research functions and have evaluated graduate programs across the country on the basis of the national research and publication role of their faculty. Universities and colleges that contribute to the development of effective teaching and new educational programming should have similar means of identifying their role and their position in the national spectrum of higher education.

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**See* Section One, p. 4.

## IV. THE ADVISEMENT ROLE

One of the specific responsibilities of teachers deserving special attention in this area is the academic advisement of students. This has emerged as a persistent and unresolved problem in undergraduate education. The disappearance or diminution of "distribution requirements" combined with emerging new opportunities for student options, such as are suggested in this Report, creates a pressing demand for faculty members to reassume their important role in organizing and giving meaning to the total educational program of individual students beyond their own major fields of interest. Previous requirement systems served as shorthand advisement schemes for the total enrollment of a school or college. With the individualization of a student's programming, the faculty must now face up to the need to individualize student advisement.

The Commission knows full well from an examination of the schools within the University as well as others across the country that no significant breakthroughs in this area of student advisement are available or even likely. Everywhere that members of the Commission have gone, small schools and large, students have expressed their consternation over the perceived inadequacy of advisement. The Commission's own statistical sample of student opinion at the University reflects some of this feeling. Even though 71.5 percent of students sampled indicated that they had decided upon vocational goals, the students involved reacted to the question, "Have you been successful in obtaining advice and counseling in your school on your educational program": Yes, 34.5 percent; No, 34.3 percent; Haven't tried, 31.2 percent. At the same time, 79.9 percent say they would welcome more career counseling services.

The Commission offers the following recommendations as tentative approaches to this major problem of effective student advisement.

### THE PROBLEM

*Departmental and college administrators should emphasize their conviction that academic advisement by faculty is a vital and prestigious role in undergraduate education.*

Once again the Commission realizes that this is a platitude, but the thrust must begin here. Not all faculty members make the best academic advisers for the general planning of an educational program. In other instances, certain historical forces and traditions have served to divert faculty from this area:

1. The low prestige associated with academic counseling and its assignment as "chore work" to newly appointed faculty members

or to faculty members who have fallen from grace; neither group can be expected to handle this function well.

2. The haphazard nature of advisement in which students have traditionally stumbled about in search of the particular faculty member who has taken the time to understand the mechanics for getting things done. This produces the situation in which a few faculty members bear the burden of program advisement because they were conscientious enough to learn about the "system," while others ignore it. This is compounded when administrators fail to communicate widely on student procedures and opportunities. It has long been considered an onerous task to many to master the complex administrative arrangements of even their own college, let alone those of other schools in the University.

3. The failure of previous systems of faculty advisement is not encouraging. Many faculty members the Commission has talked with, here and elsewhere, have despaired of advisement systems for freshmen and sophomores. Almost everyone has had some experience with "assigned advisers" allocated on one basis or another, and almost everyone has cited examples of the failure of such systems because of the unwillingness of students to appear, and the lack of personal relationships that might break down the barriers that inhibit effective advisement.

In addressing some of these manifest difficulties in student advisement, the Commission recommends:

## A. Development of Programmatic Integrity

*That the schools and colleges take seriously the thrust of Section Two* of this report and look to the development of programmatic integrity in their offerings.* Examination of schools that have abolished distribution requirements, including one in our University, indicates that the abolition of requirements is really not an end in itself. Such policies clear the way for the development of alternative routes to the school's goals based on educational rationales that the student can examine and choose. A structured program, for example, the Metropolitan Leadership Program at University College, combines its advisement with its recruitment. This is a highly desirable attribute when an educational program has defined and articulated its objectives.

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**See* Section Two, p. 6.

## B. Use of Professionally Trained Academic Advisers

*That a core of professionally trained academic advisers be utilized in the large undergraduate units of the University.* The old notions that certain faculty members can be delegated to the dean's offices for this work or that no such central advisement function was really necessary have both proved unworkable. Programs in higher education at New York University are producing academic counselors of high quality and professional dedication, who take pride in their work and place a high value on it. Use should be made of counselors trained here, at the University, in conjunction with existing faculty advisement systems. The Commission believes students need and deserve such professional academic advisement on a regular and readily available basis in all undergraduate divisions.

## C. Guidelines and Model Programs

*That the schools, colleges, and programs develop a set of guidelines and model programs consistent with the recommendations of Section Two of this Report, which discuss in some detail the alternatives open to students.* If an incoming freshman is to play a substantial role in the development of his own educational experience, and this seems to be one of the premises of lessening requirements, then he must be able to do so with more material in hand than the traditional college catalog. The preparation of model programs and guidelines is clearly a responsibility of each school and should encourage departments and programs to consider their own rationale, as well as provide faculty members with a clearer insight into the opportunities and expectations of their own institution.

## D. Freshman Seminar Advisory Program

*That schools and colleges examine the utility of a freshman seminar advisory program.*

The Commission has considered the One-to-Ten Program, which has proponents across the country. It provides that every faculty member assume responsibility for ten freshmen and sophomores as their academic adviser. In small colleges this may be attractive, and indeed, it may be so for some of the larger divisions at the University, and they will adopt it. The Commission, however, feels that this plan simply ignores the traditional problems of advisement systems that have been discussed above and plunges ahead hoping that they will somehow disappear.

It recommends, therefore, that schools and colleges examine a program that would put each freshman student in a freshman seminar and that these seminars be offered in areas of the faculty member's interest and expertise, and that, at the same time, the faculty member serve as the academic adviser to develop the future programs of the students enrolled in his seminar. The School of Education has already undertaken such a program.

The universities and colleges that have adopted this advisement system have recognized its relatively high cost but place it in a very high priority of educational programs. Its advantages include:

1. The focusing of advisement responsibilities on those best equipped to carry it out.

2. The development of an academic relationship between a faculty member and his advisee on the basis of their work together, rather than on some random selection.

3. The opportunity to evaluate and reward this faculty advisement function in a focused way.

4. The introduction of students into the institution on a personal basis.

The Commission does not guarantee that such a system will resolve all student advisement difficulties, but it is the most successful approach to the problem that the Commission has seen thus far.

## E. Training of Faculty for Academic Advisement

*That the University provide the means to train faculty members for academic advisement.*

The faculty members who undertake advisement for students should be provided with some basic ideas about their functions, the resources available to them, and the skills involved. The School of Education might offer such a program, possibly in four brief sessions during the summer. At the same time, the Director of Academic Development should provide a guide to student educational opportunities throughout the University to assist all faculty members involved in advisement.

## F. Students as Advisers

*That upper-division students be more systematically involved in the advisement process.*

The Commission, following up its previous recommendation on students as teachers, emphasizes the potential role of students in advisement. This function can be exercised through departmental committees during the academic year as well as during specific advisement and registration periods. The most frequent resistance to such proposals is that upper-division students provide personally biased appraisals of courses. However, the experience of working programs of student advisers is quite the contrary. The Commission believes students should be paid for services in advisement.

## G. Combined Career Counseling and Placement Services

*Career counseling and placement ought to be combined and represent a continuous program of both career information and counseling, individually and in groups, available to all students.*

In order to assist students in making intelligent career choices (choosing a major is part of this), the Commission believes that the counselor must be a professionally prepared individual, with at least an A.M. in counseling. This preparation enables the counselor to assist a student in assessment of his abilities, interests, and personality traits, as well as external limitations (i.e., money, etc.). Professional preparation also gives the counselor a knowledge of vocational development theory and the sources and uses of occupational–educational information. The placement function becomes, then, a natural outcome of the career counseling process. Some students need more assistance than others. The program should be designed to meet the needs of the very undecided person, as well as the goal-oriented and choice-crystallized student.

## H. Proposed Advisory Council on Career Counseling and Placement

*The Commission recommends that an advisory council be appointed by the Director of Academic Development* to determine the specifics of this proposal for a strengthened career counseling and placement service at the University.* This council would profit from representation from the Department of Counselor Education of the School of Education and from outside experts from other colleges where such programs have been established.

## I. Psychological Counseling Services

In addition to adequate career counseling and academic advisement for the undergraduate student, the Commission recognizes the need for counseling services for students with typical developmental problems of a personal nature. The professional title for such counselors is counseling psychologists. Such persons, holding doctorates, are professionally trained and certified to do in-depth counseling with the large number of students whose problems are not pathological in nature and who do not need the diagnostic services of the psychiatrists of the University Health Services.

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**See* Section One, p. 4.

## V. TRAINING OF COLLEGE TEACHERS

The Commission proposes that the current Graduate Commission mechanisms, or a newly created Commission on Graduate Education, undertake a study of the questions involved in the training of college teachers, including:

### 1. INTRODUCTION OF A NEW DEGREE STRUCTURE

*The utility of introducing a new degree structure,* usually identified in national proposals as the Doctor of Arts degree, that emphasizes the teaching function rather than a predominantly research-oriented education.

This is an issue of great complexity, even more so now that projections of future graduate school enrollments and college faculty placements are at issue.

### 2. COLLEGE TEACHING EXPERIENCE IN GRADUATE PROGRAMS

*The utility of introducing teaching experience and evaluation in an organized way into current graduate programs.*

A survey of existing graduate education indicates that attempts in this direction have been small, peripheral, and half-hearted.

The most attractive of proposals in this area would institute a teaching internship program *after* the research degree has been achieved, so that newly produced doctorates would have a one- or two-year opportunity to teach in this University under guidance. This proposal has the double advantage of looking to the preparation of college teachers and at the same time provides them with additional and useful credentials in an era of growing concern about teaching opportunities in higher education.

The above issues, and others, are surveyed in a Commission staff paper, "College Teacher Training" (*see* Appendix V).

# Appendices

## APPENDIX I

### General Bibliography

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## Persons Consulted from Outside New York University

| | |
|---|---|
| Samuel Baskin, Director, Union for Experimenting Colleges and Universities | Antioch College<br>Yellow Springs, Ohio |
| Robert E. Bjork, President | Richard Stockton State College<br>Pleasantville, New Jersey |
| Marvin Bressler, Director, Princeton Study of Undergraduate Education | Princeton University<br>Princeton, New Jersey |
| L. Campbell, Higher Opportunities Program | Southern Illinois University<br>Edwardsville, Illinois |
| Albert Capuro, Director, Admissions and Financial Aid | Brooklyn Polytechnic Institute<br>Brooklyn, New York |
| Edward T. Carine, Director of the Northeast Regional Office | College Entrance Examination Board<br>New York City |
| Paul Connole, Assistant to the President | Saint Louis County Junior College System<br>Clayton, Missouri |
| Alva Cooper, Director, Career Counseling and Financial Aid, Hunter College | City University of New York<br>New York City |
| Richard Couper, former Deputy Commissioner for Higher Education | New York State Education Department<br>Albany, New York |
| George Dillavou, Dean, School of Continuing Education | Roosevelt University<br>Chicago, Illinois |
| Kenton E. Draigh, Assistant to the Director, Instructional Resources Center | State University of New York at Stony Brook<br>Stony Brook, New York |
| Kenneth Freeman, formerly Dean, Bensalem College | Fordham University<br>Bronx, New York |
| Fred M. Hechinger, Education Editor | *The New York Times*<br>New York City |
| Roland Hence, Assistant Director of Engineering Admissions, School of Engineering | Columbia University<br>New York City |

| | |
|---|---|
| William Hesferman, Assistant Dean, School of Business Administration | Columbia University<br>New York City |
| John Jerris, Director, Environment and Science Department | Manhattan College<br>New York City |
| Ann Kaplan, Director, Admissions, Graduate School of Business Administration | Long Island University<br>Long Island, New York |
| William Laidlaw, Dean of Faculty, Hostos College | City University of New York<br>Bronx, New York |
| Walter Perry, Vice-Chancellor | Open University<br>Buckingham, England |
| Cassandra Pyle, Office of the Dean of Students | University of Chicago<br>Chicago, Illinois |
| Richard Sawyer, Bureau of Evaluation | New York State Education Department<br>Albany, New York |
| Harry Smith, President | Essex County College<br>Newark, New Jersey |
| Robert Spellman, Associate Dean for Instructional Resources | Essex County College<br>Newark, New Jersey |
| Edward D. Sullivan, Dean of the College | Princeton University<br>Princeton, New Jersey |
| Saul Touster, Professor, College of Old Westbury | State University of New York<br>Oyster Bay, New York |
| George Watson, Dean, College of Arts and Sciences | Roosevelt University<br>Chicago, Illinois |
| Goodwin Watson, Associate Director, Union for Experimenting Colleges and Universities | Antioch College<br>Yellow Springs, Ohio |
| John Wilson, Professor | Princeton University<br>Princeton, New Jersey |

## Survey of Student Opinion

Conducted by the Commission on Undergraduate Education, this survey was distributed to 26 classes chosen randomly from the seven undergraduate divisions of the University.

Total enrollment: 569

Responses: 363

Percentage: 63.8%

The difference in respondents and enrollment reflects absentees from class and cases where the same students were enrolled in more than one course surveyed.

| | *Percent* | |
|---|---|---|
| 1. Students should participate in faculty hiring. | 48.6 | Agree |
| | 35 | Disagree |
| | 16.4 | No opinion |
| 2. Students should participate in faculty promotion. | 58.4 | Agree |
| | 26.8 | Disagree |
| | 14.8 | No opinion |
| 3. Students should participate in tenure decisions. | 68.2 | Agree |
| | 16.8 | Disagree |
| | 15 | No opinion |
| 4. I have been satisfied with the type of teaching I have experienced at the University. | 28 | Most of the time |
| | 54 | Sometimes |
| | 18 | Rarely |
| 5. The "A" courses I have attended have been effective.* | 14.1 | Most of the time |
| | 35.1 | Sometimes |
| | 31.8 | Rarely |
| | 19 | Not applicable |
| 6. I would prefer not to have to take "A" courses.* | 44.3 | Agree |
| | 23.7 | Disagree |
| | 12.3 | No opinion |
| | 19.7 | Not applicable |
| 7. "A" courses should be taught and organized in new ways.* | 61.3 | Agree |
| | 3.7 | Disagree |
| | 15.1 | No opinion |
| | 19.9 | Not applicable |
| 8. All general area requirements for undergraduates should be eliminated. | 59.8 | Agree |
| | 34 | Disagree |
| | 6.2 | No opinion |
| 9. I would welcome the use of more technological aids to teaching, such as video tapes, audio tapes, and closed-circuit television. | 69.9 | Agree |
| | 16.1 | Disagree |
| | 14 | No opinion |
| 10. I would welcome more independent study programs with access to faculty for consultation. | 83.6 | Agree |
| | 6.7 | Disagree |
| | 9.7 | No opinion |
| 11. I have found large lecture courses a satisfactory educational experience. | 10.7 | Most of the time |
| | 38.2 | Sometimes |
| | 51.1 | Rarely |
| 12. I would like to have some courses taught in my dormitory. | 9.5 | Agree |
| | 13.7 | Disagree |
| | 9.5 | No opinion |
| | 67.3 | Not applicable |
| 13. The present course offerings at my college are satisfactory for my educational aims. | 36.8 | Agree |
| | 55.8 | Disagree |
| | 7.4 | No opinion |

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***This applies to students at the Washington Square Center only.**

| | Percent | |
|---|---|---|
| 14. All undergraduates should be required to choose a major field of study. | 34.2 | Agree |
| | 52.6 | Disagree |
| | 13.2 | No opinion |
| 15. I expect my own major field of study to prepare me for my career aspirations or educational goals. | 70.1 | Agree |
| | 22 | Disagree |
| | 7.9 | No opinion |
| 16. I would welcome a new major program that draws upon more than one academic department's or college's offering (i.e., interdisciplinary programs). | 70.2 | Yes |
| | 7.4 | No |
| | 22.4 | No opinion |
| 17. I have experienced difficulties in registering for course work in a school other than the one in which I am enrolled. | 21.1 | Yes |
| | 18 | No |
| | 60.9 | Haven't tried |
| 18. I have experienced difficulties in receiving credit for course work in a school other than the one in which I am enrolled. | 21.4 | Yes |
| | 22.6 | No |
| | 56 | Haven't tried |
| 19. Students should have a greater voice in the development of the curriculum in my school. | 84 | Agree |
| | 8 | Disagree |
| | 8 | No opinion |
| 20. I have decided upon my vocational goals. | 71.5 | Agree |
| | 28.5 | Disagree |
| 21. I have been successful in obtaining advice and counseling in my school on my educational program as it relates to my vocational interests. | 34.5 | Yes |
| | 34.3 | No |
| | 31.2 | Haven't tried |
| 22. I would welcome more career counseling services for undergraduates. | 79.9 | Yes |
| | 3.7 | No |
| | 16.4 | No opinion |
| 23. I am in favor of a shorter time span for my bachelor's degree through fewer credit requirements. | 59.5 | Agree |
| | 26.5 | Disagree |
| | 14 | No opinion |
| 24. I would like to take some of my courses in the evening. | 38.1 | Agree |
| | 40.4 | Disagree |
| | 21.5 | No opinion |
| 25. I am in favor of having the opportunity to take qualifying tests for college credit in some subjects, without taking the courses. | 85 | Agree |
| | 7.8 | Disagree |
| | 7.2 | No opinion |
| 26. I would like to have access to graduate level courses while an undergraduate, in a combined degree program that would shorten the time spent in obtaining the bachelor's and master's degrees. | 89.2 | Agree |
| | 2.5 | Disagree |
| | 8.3 | No opinion |
| 27. I am in favor of more extensive summer school offerings, so I can shorten the time span of my bachelor's degree. | 71.7 | Agree |
| | 7.8 | Disagree |
| | 20.5 | No opinion |
| 28. I am in favor of having the opportunity to lengthen the time span of my bachelor's degree by taking a year or semester off for work or travel. | 56.9 | Agree |
| | 22.3 | Disagree |
| | 20.8 | No opinion |

*Percent*

29. The size of my school is too large for an effective educational experience.

26.2 Agree
59.3 Disagree
14.5 No opinion

30. *Educational Objective* (Please indicate the *two* most important objectives that apply to you, about why you are attending the University (1: most important, 2: second most important).

| | *First Choice* | *Second Choice* |
|---|---|---|
| To prepare myself for graduate school | 15.9% | 16.3% |
| To prepare myself for professional school (Law, Med., Dent., G.B.A., G.P.A., etc.) | 9.8 | 5.2 |
| To prepare myself for a job with a bachelor's degree | 22.1 | 14.2 |
| To learn more about myself | 6.1 | 8 |
| Because my parents expected me to go to college | .8 | 3.4 |
| To take advantage of the city and its opportunities | 2.8 | 6.8 |
| I am not sure | 3.9 | 3.7 |
| To educate myself for service in the community | 8.7 | 9.8 |
| To improve myself through education | 20.4 | 27.4 |
| Other (write in): | 9.4 | 5.2 |
| Totals | 100.0% | 100.0% |

31. *Criteria for Rewarding Faculty* (Indicate the *two* criteria that you feel are most important (1: most important, 2: second most important).

| | *First Choice* | *Second Choice* |
|---|---|---|
| Teaching ability | 80.4% | 17.6% |
| Scholarly publications and research | .9 | 6.6 |
| Campus citizenship (serving on committees, etc.) | 0 | 1.5 |
| Interest and involvement with students | 17.8 | 70.4 |
| Other (write in): | .9 | 3.9 |
| Totals | 100.0% | 100.0% |

If you have any additional comments or suggestions about undergraduate education at New York University, please write them below. ***We thank you for your help.***

# EXPLANATION OF THE UNDERGRADUATE QUESTIONNAIRE

A survey of opinions of the undergraduate student body was utilized to obtain additional information on student views beyond general discussion and interviews. The research technique used has the important advantage of enabling the Commission to make scientific statements about the *entire* undergraduate body rather than particular groups of students. That is, the information obtained about students at the University describes the *overall* attitude of *all* students toward specific issues. To the Commission's knowledge, this is the first "probability sample" that has been taken at the University, and, aside from specific findings, the Commission believes one of the important by-products of the survey is that it demonstrates that accurate information about student attitudes can be obtained quickly and with relatively small expenditure of resources. Although this technique is not directly related to the Commission's task, we believe that it should be used more often to obtain information from the student body about critical matters relating to the undergraduate educational process.

Under the direction of Professor Richard P. Brief and Assistant Professor Aaron Tenenbein of the Department of Quantitative Analysis, College of Business and Public Administration, a simple random sample of 26 classes was taken from a complete list of undergraduate classes offered during the spring semester. (The sample size was allocated among the undergraduate divisions in proportion to the number of classes offered in each division.) The total number of students registered in these 26 classes was 569. Of this number, 363 students completed the questionnaire. The remainder either were absent from class or had already completed the questionnaire in another class. The response rate was therefore 64 percent.

The resulting data reflect the attitude of students who responded to the survey and can be interpreted as reflecting the views of students who attend classes regularly. This fact should be borne in mind in interpreting the percentages that appear in this report.

The sample design, known as cluster sampling,* enabled the Commission to estimate the attitude of the entire undergraduate body toward various issues that were of interest to the work of the Commission. The results are cited in the appropriate sections of the Report. Because a probability sample was taken, Professors Brief and Tenenbein believe that one can be about 95 percent confident that all the numbers relating to the survey results are, roughly, within 10 percentage points of the results that would have been obtained if a *complete* census of the undergraduate classes had been conducted. The advantage of a probability sample is that one can specify the precision and the confidence associated with all statements about student opinions.

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*William C. Cochran, *Sampling Techniques*, 2d ed. (New York: John Wiley & Sons, 1963), ch. 9.

# APPENDIX II

## Bibliography

### The Open College

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## Report on Student Typology

### *by L. Jay Oliva, Commission on Undergraduate Education, 1971*

The staff of the Commission on Undergraduate Education examined the many assertions in available studies and reports from national foundations, individuals, and other colleges and universities that a greater diversity of students was appearing in higher education than the institutions of higher learning were accustomed to receive. In the wake of such reports and studies, there has been some effort across the nation to determine the nature of such diversity and to examine the higher educational programs from the point of view of student needs and aspirations.

The staff of the Commission undertook to examine the character of such student diversity in our own University through the development of a student typology that would attempt to identify and quantify in broad terms the educational expectations of our undergraduate students. A survey of existing student typologies from many sources was done, and a reasonable composite was prepared with the assistance of Commission members and others in the University. This tentative typology was then circulated to the deans and advisement officers of the undergraduate divisions in order, first, to elicit their reactions to, and changes in, the typology itself, and, second, to ask their assistance in making quantitative estimates of students in the typology in their own school or college.

Later, in order to get some sense of student opinion on the issues in undergraduate education, the Commission sponsored a Statistical Survey of Student Opinion among the undergraduate students of the University (provided in Appendix I of this Report). An attempt was then made to correlate the data received from the student typology with the Survey of Student Opinion.

The Commission has not been satisfied that this attempt at a student typology has been sufficiently productive to assist in the examination of undergraduate programs. The materials from the typology did not readily correlate with the systematically developed student sample.

At the same time, the Commission feels that the development of a useful student typology ought to be pursued, and, it is hoped, in the same professional spirit in which the Survey of Student Opinion was undertaken. Therefore, the Commission recommends to the Office of Academic Research (*see* Section I of this Report) that it reexamine the development of a student typology through the use of professionals skilled in such development.

## One Vision of the Open College

### *by J. Michael Miller, Commission on Undergraduate Education, 1971*

### RATIONALE

The problem is to conceive of an educational structure that will be continually responsive to changing needs and individual concerns.

For several years now, I have listened to students of mine complain about the inadequacies, even inequities, of their curriculum. It bothers me that I actually listen less and less each year. My own undergraduate education ended fourteen years ago, but I still remember vividly my own frustration with my undergraduate curriculum. I hear the same frustration expressed again and again a full generation later.

Having some control over a curriculum myself, I have to believe that "it's better than it used to be." The situation now is certainly more flexible, varied, and (if we'll admit it) more professional. Highly qualified faculties of that era look pale indeed alongside those built up during the recent Ph.D. implosion. There is not a single discipline that has not broadened its offerings and improved its teaching. But the criticism has not eased. It has grown more intense.

Why? If I remember my own frustration accurately, it had to do with not being free to follow my inclinations. If I assess the students' frustration correctly, it has more to do with the form their curriculum takes than its content. I think renewal in higher education will come with the development of more heightened and varied forms of education, rather than with a radical change in institutional goals or in the content of curricula.

There are basic human concerns that guide our intellectual development. Those same concerns have been the basis of humanistic studies for centuries. But they can be defined and approached in fresh and various ways, allowing each individual to follow his or her own line of inquiry.

Jean Mayer, in an article in the *Harvard Bulletin,* November 1970, put it this way:

> My thesis is that there is now, precisely as a result of the new pressures on universities, a rapidly growing justification for the existence of liberal arts colleges. I believe that colleges of liberal arts will be made to undertake a massive effort, not so much to "break the barriers between disciplines"—a rather hollow concept—but to look at problems as they present themselves prima facie. They will be led to consider which disciplines should be involved in the assessment of the present situation, and to elaborate the formulation of discrete questions.

Just as there are no prescriptions for the role one will play in life, there are no immutable standards nor perfect patterns for a sound education. Most students I know are asking for the chance to choose a direction and follow it wherever it may lead. If the "Renaissance man" was the model for liberal arts colleges in the past, the "liberated woman" may well become the standard-bearer of the future.

The Open College represents a search for alternatives—for new ways to approach learning. The description that follows is provided to suggest several ways in which a range of information and methodology can be selected and focused in discrete educational programs. It is only a conceptual model—a carrot offered to solicit response. A basic tenet of the Open College must be that its form and direction come from those who participate in it.

## THE OPEN COLLEGE

The Open College will be a confederation of small, autonomous programs, each dedicated to singular goals and a particular approach to undergraduate education. There will be no departments or majors as such. No curriculum committees! In some programs, no courses! Every attempt will be made to encourage a student's progress horizontally rather than vertically—expanding individual ranges of interest and concern—measuring intellectual growth first and the mastery of facts or skills second.

Shared experience—teacher and student—both practical and classroom will be the one norm applied to all programs (e.g., when all students attend a lecture, all faculty attend the lecture; when some faculty go to the field, some students go to the field with them). Every effort will be made to place the student and his teachers on a more equal footing—to develop close working relationships and common concerns over an extended period. Emphasis will be placed on individual choice and personal responsibility.

All programs will be either *multidisciplinary* (combining a variety of fields of study for a particular purpose) or *interdisciplinary* (bringing a specific group of disciplines to bear on a single line of inquiry). And all programs will adopt the basic time and motion principles suggested in Section Three of this Report.

Models for three such programs are outlined below. A number of program ideas were developed by members of the Commission on Undergraduate Education and are contained elsewhere in this appendix. The models presented here (Topical Studies, Task Force, and Early Admissions) have been altered considerably to fit this particular concept of the Open College. They should be seen as autonomous but compatible programs, operating separately or in concert. When desirable, these programs could form a natural sequence of study.

## TOPICAL STUDIES

*A general education program that could serve as an alternative to the present system of Coordinated Liberal Studies ("A" courses) and/or could be adopted as New York University's version of a two-year college.*

The program is designed for those students who feel the need to make their educational experience a tangible part of the process of self-discovery. "First-rate" problems rather than great books will be explored. Courses will be conceived as single, catalytic experiences, rather than as background for specific fields of study. Students will relate to the courses in ways that seem most significant to them at the time. No student will be expected to master specific skills or a particular body of information at the end of a given period. The goals are to carve open new areas of interest, to provide an ever-widening range of perspective, to enlarge the student's own historical and intellectual context as much as possible.

In a speech given February 1969, Barnaby C. Keeney made a statement that could be used as an introduction to the Topical Studies program:

> I would take about a fourth of the student's time throughout the undergraduate years and organize it into courses which I would call history, and literature and philosophy, and anything else that seemed appropriate and organize these courses around first-rate problems. The differences between first-rate human problems and second- and third-rate ones is that they tend to be around for a long time, whereas second-rate ones tend to get solved and become of antiquarian interest.

This program is multidisciplinary and highly flexible. Covering the first two years of college experience, it combines elements of independent study with master lecture, tutorials with seminars, and the commune principle with student teaching. If taken as a total program, it would consume *one half* of the student's undergraduate course of study.

*Courses:* Four new courses will be offered each semester. The courses will be designed by the core (resident) faculty of the Topical Studies program and will be concerned with "first-rate problems," e.g., war, love, world government, the nature of the universe. First-rate problems demand the best minds available to define their nature and scope. Lectures will be given by recognized experts on an average of twice a week, including major artists, scientists, philosophers, historians, men of state. And the questions raised will not be answered but explored in a variety of ways. A poem may be as central to discussion as a philosophical treatise, a novel a more important statement than a political document, a historical paper as relevant as scientific data. Each course will be worth 8 points of credit, and any combination of two courses will constitute a semester of study.

*Students:* The program is designed to accommodate any number of students and has less than the normal concern for previous academic background or achievement. What is required are solid reading and expression skills, college-level aptitudes, and the expressed desire to share a learning experience with others.

Students will be divided into groups of twenty, and effort will be made to form groups of peers. These groups will remain intact throughout the two-year duration of the program. The groups will work on a commune principle. In consultation with faculty, they will decide which courses they will attend each semester and what aspects of the courses they will focus on. In addition to attending the public lectures (and members of any group can attend the lectures for all four courses if they wish), each group will meet ten hours per week in a seminar session to discuss the lectures and the related reading they have done, to explore the questions they have posited for themselves at the beginning of the semester, or to pursue tangential questions with faculty members whom they have invited to join a particular discussion or to offer a short course on a subject of special interest.

There is no need for grades or term papers or examinations in this program. Each student will meet with the faculty leader of his group periodically (starting with one hour per week) to discuss his individual research, to assess his contributions to discussion and his progress in general. At regular intervals, all students will be required to submit the results of their thought and research for evaluation and discussion by their peers. (There is no reason to reserve that particular process of assignment and contribution for graduate seminars.)

*Faculty:* One faculty member and one graduate intern will be assigned to each group. The faculty member will remain with the group for the full two years, attending all lectures, guiding all discussions, and meeting regularly with each student on a tutorial basis. Twice each semester, the faculty member will be required to provide a written evaluation of each student's progress (in lieu of grades) and to discuss those comments with the student.

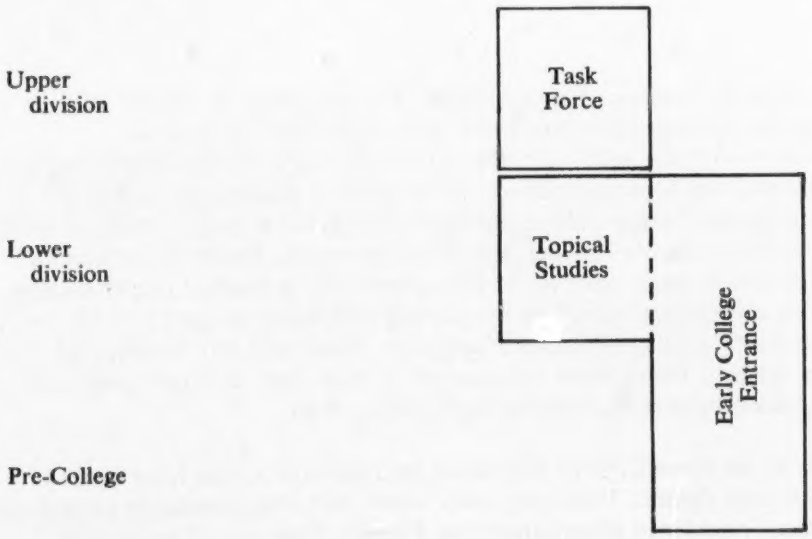
The graduate intern will assist in guiding discussions, advise students on reading materials and independent research projects, and assume the major burden of tutorials in areas where students need help, under the guidance of the faculty member.

This concept of the program assumes a commitment of up to forty contact hours per week for each faculty member and perhaps half that amount by each intern. When one's primary responsibilities are as adviser, group leader, and tutor, that kind of *teaching* load is possible for at least the first four to six years of one's career. If the University can provide the proper incentives and/or recognition for young people entering the profession in those positions, I don't think it will lack for candidates.

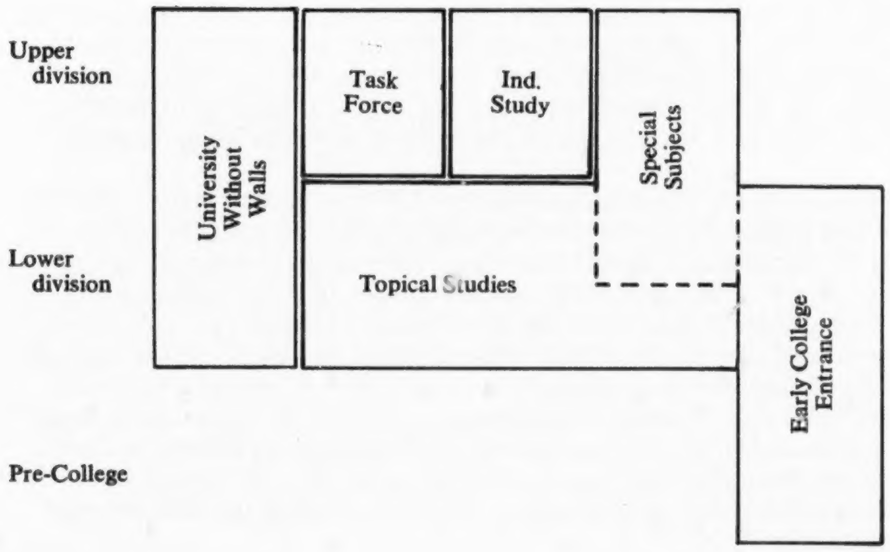
The real problem will be to find faculty members equipped to handle the scope of the problem—generalists with the energy and intellectual curiosity to set continuous example for their students by constantly searching for fresh perspectives on age-old problems—new information, new arguments, new metaphors. The graduate internships—the training of generalists to assume this role—could be a key element to the realization of the whole concept.

*Part-time students:* The program demands full-time participation in the best sense of that phrase. Parts of it, however, can be used effectively by other students. For example, students from other colleges could form a group and take one of the four courses for full credit, or make up their own course basing their subject of inquiry on any combination of lectures provided by the four announced courses. Individual students might be able to register through their home colleges for the lecture portion of a course or courses plus a term paper for half credit. Students in the evening divisions of the various colleges could exercise either one of those options. And certainly the lecture portions of the course should be video-taped and made available to all through a tape center in the library and/or sold to cassette companies to create revenue for the program.

Using the programs as basic modules, the Open College would resemble the following diagram:



If the University Without Walls program were added, along with programs for independent study or special subjects (e.g., medical engineering, urban studies, Third World cultures), the Open College would begin to assume its full size and shape.



A student entering the Open College might take two years of topical studies and then spend two years in a task force. He might take one year of topical studies and three years of a special subject, e.g., medical engineering. He might move from topical studies to an English or philosophy major at Washington Square College. He might have completed enough advanced work in high school to enter the Independent Study program, finish his bachelor's degree in two years, and move on to law school. Or, a student might escape an impossible high school situation by gaining admission at age 15 or 16 through the Early College Entrance program. There are any number of alternatives open to the student in a system of this kind, and new ones can be added without increasing costs or duplicating effort.

This view of an Open College was developed through a year long series of discussions and debate. There are other views and other concepts (based on like principles) contained elsewhere in the Report. They are all presented here as an expression of the Commission's concern for the development of alternative forms of undergraduate education at New York University.

## Task Force Learning

### *by Diane F. Giacalone, Commission on Undergraduate Education, 1971*

Task force learning is a departure from customary time arrangements in undergraduate education, as well as from traditional disciplinary and course divisions of a student's efforts. Jean Mayer, of Harvard University, has discussed several dimensions of education closely related to task force learning, saying:

> Surely, a vision of the future in realistic terms is as much a part of culture as a sense of continuity with the historic past or as understanding of the present. It is only "relevant," but inasmuch as it places knowledge in a general framework and makes it usable, it is what education (as opposed to simple instruction or training) is all about. It is in this type of endeavor that contact with the faculty can be most meaningful to students: the honesty, generosity, and universality of views which are characteristic of a good faculty, should show in debates that realistically delineate the world we live in and probe the options from which we can choose.
>
> *Harvard Bulletin,* 1970.

There are several distinctive aspects of task force learning that offer unique opportunities for excitement and accomplishment in education.

First, a task force is a group of people who have decided to focus their efforts, for an extended period of time, on a single problem of sufficient magnitude to include by implication many other major problems, and a variety of approaches to them. The problem that serves as the focus will modify the approach used in the study of auxiliary issues, but the wide range of understanding necessary to the analysis of any single problem is clear from a consideration of the interrelatedness of urban problems. Study of housing in New York necessitates work in the areas of transportation, education, medical care, community development, and so on, through the use of such diverse disciplines as biology, politics, law, and psychology. This combination of a wide spectrum of topics, with an equally extensive range of skills, guarantees a broad, well-balanced approach within task force groups.

Second, the commitment of a substantial period of time, here defined as two years, makes possible scheduling arrangements that are based solely on the educational necessities of the program. Freed from the external restrictions of semester and course divisions, members of the task force are able to tailor work and seminar arrangements to suit the progress of the group. Three weeks of research may be followed by two weeks of intensive seminar meetings, followed by four weeks of fieldwork, then back to the seminars to evaluate group and individual progress. Two or more of these activities may be undertaken simultaneously. The key is the flexibility and the intensity that is possible and that is necessary to the development of personal and professional communities of learning and to the acquisition of new skills.

Third, participants in this task force would not be a random collection of individuals, but a group of people chosen by the faculty directors as much with an eye to their future performance as members of a working unit as to their interest and academic skills.

Fourth, task force learning carries with it the implicit requirement of fieldwork as an intrinsic aspect of the program. It is inconceivable that a program so directly focused on the solution of real problems should not move from the library to the various arenas in which these problems are played out.

Finally, the combined efforts of members of a task force would lead logically to the production of some major piece of work, a joint effort by group members, reflecting not merely the sum but the explosion of information, ideas, and skills resulting from communal effort. Production of this piece of work forces continual reexamination of the topic, bringing together the many scattered projects of participants. It also intensifies the sense of responsibility of each group member to all others. The interrelatedness of both the various aspects of the topic, and the work done by group members will be emphasized.

These general characteristics of task force learning groups, and the ways in which they combine to create an exciting educational experience, can best be illustrated through the use of a model program. The subject of this model is the study of transportation patterns in New York City, but other topics are equally suitable. Exploration of such areas as community medicine, labor unions, "future shock," housing, health insurance, four-day work week, preschool education, are all opportunities for task force projects.

## MODEL TASK FORCE ON TRANSPORTATION

*Topic:* The task is to design a proposal for a complete transportation system for New York City that responds to the ways in which transportation patterns influence life styles and community development, is compatible with existing facilities, and takes into account the political and economic necessities of the city.

*Time:* Two years.

*Participants:* The task force would comprise three full-time faculty members and fifty students. These faculty members would be people who, rather than use sabbatical leave as the time when their interests were pursued, chose to work with a group of students on a topic of concern, i.e., transportation in New York. Their involvement in study of this problem may predate the task force, or may be relatively new: in either case commitment of time and energy must be high. Contact hours with students and preparation time for seminars that attempt to share information and experiences unfamiliar to all will greatly exceed an average teaching load.

Students admitted to the program would be upper-division students from a variety of disciplines and schools. They will be chosen by, and work with, one of the three faculty members on that aspect of the topic which that faculty member has decided to investigate. Selection of students will be completed sufficiently early to enable the faculty member to arrange internships in the area of the student's interest. It is the responsibility of the faculty member as much as the student to assure that each individual is involved in the work of the other members of the group. Full-time participation would be the norm, although part-time participation is possible.

*Facilities:* The needs of the program will be minimal: some offices, a few classrooms, meeting rooms, and a lounge for informal gathering. It is hoped that arrangements of offices and lounge could provide a central meeting place for participants, which would establish close personal and working relationships.

*Introductory Discussions:* Since all participants would be fully aware of the nature of the task force, a minimum of introductory sessions would be needed. One or two days of general discussion would be followed by immediate entry into the fieldwork portion of the program. General discussions would parallel the field activities of participants, and serve merely to outline areas to be explored and give some notion of the relationships between various aspects of the topic. Topics would include:

1. Transportation patterns and their effects on the development of communities.
2. Zoning, land use, transportation, and employment.
3. Federal, state, and city participation in the development of urban transportation systems.
4. Environmental effects of current transportation systems.
5. Current regulation and control of transportation, including federal, state, and local legislation, and special government agencies and commissions.
6. Economic implications of various transportation types on the city.
7. Transportation and its effect on housing patterns.
8. History of the development of transportation patterns in New York, other American, Asian, European cities, and the relationship between cultural development and the choice of transportation modes.

These discussions would serve as starters for future research and fieldwork by participants in one or more of the areas. The beneficial effects of intensive seminar discussions alternated with work periods would be duplicated at other stages of the program.

*Fieldwork:* Field activities, arranged before the start of the task force operation, could be either internships in city agencies or private corporations, or research assignments on one aspect of the topic. Both approaches have important characteristics in common. Both are not merely valuable personal experiences for participants, although they are certainly that, but also information gathering devices. The material or the experience attained through research or internship is crucial to the functioning of all other members of the group, and must be fed into the group for accomplishment of mutual goals. Both activities require commitment to intensive study. And both require independent, self-directed effort. Internship research possibilities include assignments to such tasks as setting up an advisory board in Transportation Administration on the environmental effects of proposed projects, working with an architectural firm on a proposal for a model urban community (including low- and middle-income housing, and cultural facilities), working in a New York State Employment Office on a research project to determine the effect of the availability or lack of availability of public transportation on the unemployment rates of several sections of the city, or research on a community that has recently undergone substantial changes in zoning regulations.

The relationship between the seminar discussion and the field activities of students and faculty would be symbiotic; accomplishments of tasks in the field lead inevitably to a need for analysis of experiences, and ideas developed in group discussion will naturally be tested in the field.

*Reports:* Periodic seminar sessions of the entire group and also of part-time students working under a particular faculty member would be held at times appropriate to the work of the task force, covering from one day to a full week. Prior to each seminar meeting, brief progress reports, outlining personal growth and awareness as well as substantive information in the area for which the participant is responsible, would be circulated to all members of the group. The group as a whole would be responsible for the production of an interim and a final report. The device of interim and final reports is not suggested as an exercise, or to justify the work of the group to skeptics. The hard compromises and difficult adjustments of position that will be necessary before the group can combine disparate pieces of information and experience into a significant statement is the core of the task force experience. It will be the responsibility of the faculty members to provide the "starters" for this process by insisting at every stage of progress that experiences and information not be merely narrated, but challenged and modified by other group members. It will also be the responsibility of the faculty members to coordinate the collection and analysis of information and experiences for the preparation of an interim report after one year, a final report after two years. This report may take the form of a series of suggestions for legislation to the City Council, followed by rationale and argument, or a book consisting of a series of articles on the various aspects of transportation discussed, or a set of pamphlets outlining possible alternatives to current transportation systems and their potential effects on housing, employment, business, and social climate.

*Evaluation:* Evaluation in a learning situation of this sort has no punitive or competitive aspects. The accomplishment of tasks will make natural an exchange of opinions on the applicability and value of the work of all members. Discussion of this kind will probably be frequent and informal. The establishment of any more structured evaluative mechanism to measure the progress of the students and faculty, and of the task force itself, should be left to the judgment of the participants. One danger to be avoided is the trap of over-evaluation. In the early stages of such a program, many mistakes will be made; most should be minimized, some should be ignored. Continual and scrupulous introspection may make it very difficult to continue working together effectively.

Increasing demands by students for sharply focused educational experiences often lead to proposals for revisions in traditional programs which remain, however, within existing frameworks of course and semester divisions. The use of task force learning groups provides students and faculty members with an opportunity to arrange their learning schedules solely according to the educational necessities of their projects and their learning community, and to commit themselves to clearly defined goals. The ability of task force learning groups to fulfill the requirements of focus and flexibility in education, as well as the willingness of students and faculty to make serious commitments of their time and energy, are sufficient justification for the serious consideration of adoption of task force groups as an alternative learning method.

## Early College Entrance for Ghetto Young Adults

### *by Haydée Rivera, Commission on Undergraduate Education, 1971*

One of the sad facts of life for the student from the ghetto is that, as he matures, he becomes aware of the growing disconnection between his life experience and his educational experience. When a student sees his learning and his living, his schooling and his growing up as two different, separate and even contradictory experiences, he will neither grow up nor learn anything to make him of future value to his people.

It could be argued that this is generally true for all students in our society. Intellectual and social life in the United States today, especially in urban centers, has become increasingly fragmented and no longer seems a total human experience. It is instead a collection of isolated events that do not relate to each other, such as education, employment, family, and leisure.

Because this fragmentation reflects itself so intensely in schools and universities, the student begins to feel a growing sense of disorientation and frustration as he perceives the lack of relationship among courses and programs of study, and the disconnection between these studies and his life. The present educational structures, as so many studies have shown, impede a complete experience for both faculty members and students and emphasize the isolation of the educational institutions from the society at large.

This sense of fragmentation, however, applies much more profoundly to students from the so-called minorities in the United States—Blacks, Puerto Ricans, Chicanos, Chinese, rural and urban poor.

For the "ghetto" student, growing up means growing aware of the difference between his life experience and the experiences of other people not like him. Gradually he learns that other people live materially better lives. He realizes that his "maturity" will depend heavily on his ability to identify those stigmas that have caused his condition and his successful assimilation into a life that carries with it the prerogatives of a better life. This, in effect, is the traditional process of "Americanization" whereby European immigrants (to the virtual exclusion of non-Europeans) created a melting pot. The rewards for undergoing such a process were, of course, social and economic mobility. For the non-Europeans, excluded for reasons that make it virtually impossible to alter their situation, this process ends halfway. After giving up everything that animated their elders—values, tastes, styles, language, names, and in some instances religious and ethnic affiliation—they discover that they are and will continue to be "something other," subject to the criteria and measures established by a majority they will imitate but never be. This is a deadening realization and the key to any discussion concerned with students and society.

This sense of failure begins to affect the student during his formative years in high school and is dramatized in the large number of school dropouts. It is precisely during those vulnerable years when the young adult is grappling with a sense of identity and of psychological and intellectual cohesiveness, that the traditional educational system robs him of any possibility of feeling himself an integrated human being.

Until now the efforts by institutions of higher education to better the education of the ghetto youth has been based on a philosophy that strives to ameliorate deficiencies, which at the same time are being allowed to mount to such a point that the student cannot overcome them. This being the case, a student who works his way "up" within this "deficient" system is fated to belong to this system in the eyes of the university no matter what his personal achievements are. In other words, the university would select ghetto students according to a comparative scale of fewer deficiencies, always understanding that the student chosen is an "inferior" student, an understanding the student never escapes.

It has become evident in the last few years that the university has sought to draw a new purpose from its relation to the society around it, and to this end has sought to admit and educate more ghetto students. This effort, though praiseworthy, has largely resulted in failure and much counter-productive activity. For example: isolated ethnic study courses introduced to forge a sense of identity have served to broaden the line the student sees between what he is told is the "cultured" society and his "cultureless" milieu. Such isolated courses lead us away from our purpose: to create a person fully conscious of himself as a *person* and completely free from the rhetorical, and at the same time, effective fetters of "minority status," "culturally underprivileged," and other categorizations.

The experiment we propose offers an educational experience to the ghetto youth that begins with his last two years of high school studies and that will attempt to satisfy his need to relate socialization as essential to self-understanding. To achieve this end, the process of recruitment will be central to the experiment's success. The program must be offered as a unique personal challenge to the teacher as well as to the student: education must be defined as the fruit of their personal encounter.

Students will work in small groups. One, at the most two, courses or projects will be undertaken at any one time. Basic skills will be practiced and developed in terms of specific projects, e.g., mathematics in terms of operating a business, administering health programs, computer analysis of population density and housing patterns. Communication will be divided into two distinct skills: writing and reading. Writing will stress purpose; for example, propaganda (e.g., television commercials for local cable television stations), political platforms, scripts for documentaries, letters to magazines, journalism. Reading will cover the making of magazines and newspapers, films, etc., and the development of diction, rhetoric, syntax, logic, clarity, tone and sincerity of expression. History will be taught in terms of migration, how governments form policies, legal and outlaw leaders, majorities and minorities in history, economic and political exploitation.

Periods of study will be interspersed with periods of work, travel, and community action. Different groups will operate on different schedules, but courses of study should lead to specific work, travel, or community action projects. Projects should lead to courses. Students should become increasingly involved in the initiation and development of both. The process should be continuous and self-perpetuating.

Once the student has completed the program, earned a high school equivalency diploma, and completed the equivalent of two years of college, he or she should be in a position to choose an upper-division course of study that is related both to a sense of self and to future goals. We would expect these students to choose widely, to be as interested in and qualified for the upper-division programs in the Open College as they might be for Washington Square College, University College, the College of Business and Public Administration, or the School of Education.

We do not believe there exists such a thing as a ghetto education; rather, we feel that the ghetto environment obstructs the student's sense of belonging and the right to dream and discover. The "normal" educational process of the student in the predominant culture involves a natural transfer of values and sense of worth (socialization). A ghetto youth lost in this process is involved in an "alienation" from himself, an experience that puts his own sense of belonging and worth in doubt. Our goal will be to create a parallel environment, bringing the student to discover the distinction between his true capabilities and the poverty around him, to the realization that the ghetto is a socially created entity and not the necessary conclusion of an unchanging premise of nature.

## The Modular Curriculum—A Design for an Individualized College at New York University

*by Roscoe C. Brown, Jr., Director,*
*Institute of Afro-American Affairs, February 19, 1971*

The Modular Curriculum could also be called "A Design for Self-Directed Education" because it is based on the principle of maximizing the individual's responsibility for his own education. The Modular Curriculum is based on three modules (units of time); individualized instruction, small group instruction, and independent study. The amount of time spent in each module would be worked out by the student and his adviser.

### Module I — Individualized Instruction

This module would provide for direction for basic instruction in subject areas such as English composition, mathematics, history, sociology, psychology, literature, and would utilize computer-assisted instruction, televised (video-cassettes) instruction, and programmed instruction. Each course would provide for two or three master lectures given by an outstanding teacher or lecturer to highlight certain of the basic ideas in the course. This module would account for 50 percent of the usual four-year curriculum.

### Module II — Small Group Instruction

Small group instruction associated with each course would provide for interaction between students and interested faculty members. The small groups would provide for exploration of key concepts in the course. The groups should contain between 10 to 15 students and should meet approximately 7 or 8 times per term, but could meet more often if both the students and instructors desired to do so. This module should account for approximately 25 percent of the usual four-year program.

### Module III — Independent Study

Students would enroll in independent study or a follow-up of individual courses, or become part of an integrating experience (e.g., a study of a specific problem in urban economics or operating a maternal and child care and family center administered by the University). The independent study would be monitored by a qualified team of faculty members and would account for approximately 25 percent of the usual four-year program.

It was suggested that the University experiment with the Modular Curriculum in a small experimental unit that could be called the *Modular College*. Such a unit might begin with 100 students and 10 or 15 faculty members from a variety of disciplines. It is my belief that this approach could apply to majors in most disciplines and that the Commission on Undergraduate Education should encourage some key professors, both young and not so young, to become involved in such an experiment. In addition, plans should be made to give college credit for expertise gained outside of courses that is applicable to an appropriate area of curriculum.

### Time Required To Complete the Modular Curriculum

No specific time limits should be established for completion of the Modular Curriculum. Conceivably, one student might complete the curriculum in two and a half or three years, and another might require four and a half or five years to complete the curriculum.

### Some Caveats

In order for the Modular Curriculum to be successful, we must be alert to certain factors which, if not considered, could cause a number of problems. *First,* since the idea is based on the commitment to individual initiative, interest, and ability, both the *faculty* and the *students* in the Modular Curriculum should be aware of the need for increased self-discipline in following up and implementing plans and in meeting specific commitments. In other words, a great amount of personal commitment is necessary for the Modular Curriculum to achieve optimum results. *Second,* a period of preplanning of approximately six months to a year is necessary to plan and develop the instructional package for the individualized instruction module (Module I). A good deal of assistance could be obtained from the various educational media companies and from the various curriculum development projects that have been conducted during the past few years. *Third, evaluation* must become a reality rather than a cliché. If the bugs in the Modular Curriculum are to be identified and acted on before they become too serious, the evaluation process must be organized and implemented at the beginning of the program.

### A Modification

One modification of the plan for the Modular Curriculum would be to limit it to the first two years (or 60 points) of the curriculum. While the four-year approach is very attractive, financial and other realities may require that the program be initiated in a two-year cycle.

## Schematic Design of the Modular Curriculum

| Year | *First* | *Second* | *Third* | *Fourth* |
|---|---|---|---|---|
| Module I<br>Indiv. Instruc. | 60% | 60% | 50% | 30%<br>20% |
| Module II<br>Small Group | 30% | 30% | 20% | 50% |
| Module III<br>Ind. Study | 10% | 10% | 30% | |
| Total time | 100% | 100% | 100% | 100% |

*Note:* Students can accelerate or decelerate on the basis of consultation with adviser.

## Model Worksheet To Determine Instructional Need for Module I

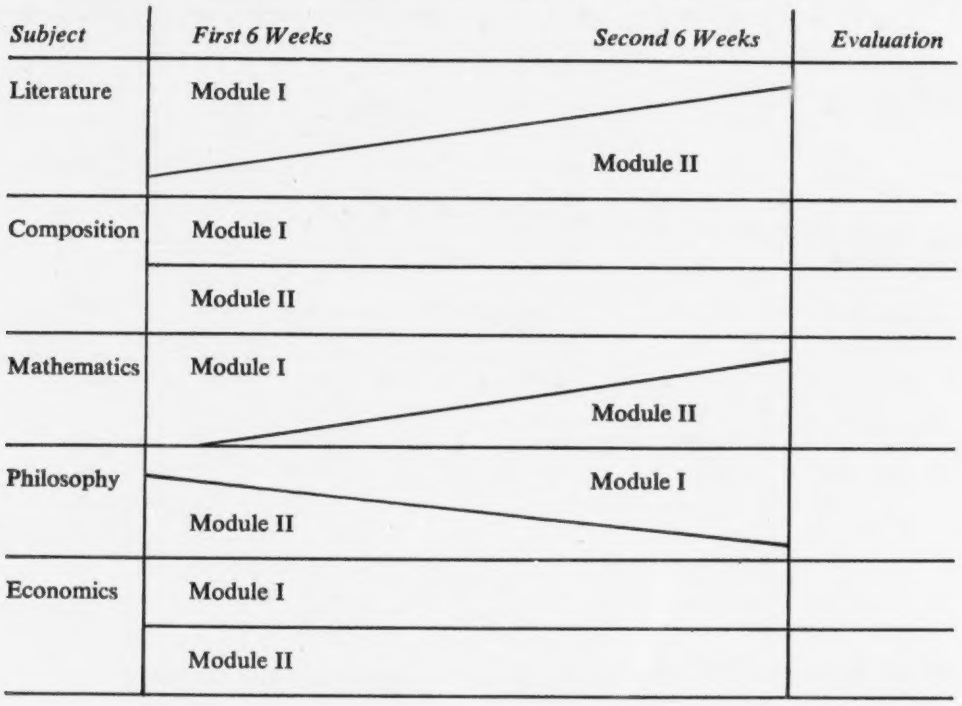
| *Subject Area* | *Computer Assisted* | *Video-Cassettes* | *Programmed Instruction* |
|---|---|---|---|
| English Composition | | | |
| English Literature | | | |
| American Literature | | | |
| Sociology | | | |
| Psychology | | | |
| Mathematics | | | |
| Intro. Biology | | | |
| Intro. Physical Science | | | |
| Geology | | | |
| Philosophy | | | |
| Art | | | |
| Music | | | |
| History | | | |
| Economics | | | |
| Politics | | | |
| Language | | | |

*Key*

A: already available
D: in process of development
I : to be initiated

## Sample One Term

*Schedule for Modules I and II showing allocations for various subjects.*



| *Subject* | *First 6 Weeks* | *Second 6 Weeks* | *Evaluation* |
|---|---|---|---|
| Literature | Module I | | |
| | | Module II | |
| Composition | Module I | | |
| | Module II | | |
| Mathematics | Module I | | |
| | | Module II | |
| Philosophy | | Module I | |
| | Module II | | |
| Economics | Module I | | |
| | Module II | | |

## Some Logistics

*Programs needed:* Programmed instruction manuals need to be prepared and printed in sufficient quantity.

*Computer-assisted terminals:* 3 terminals and central storage for each course available from 9 a.m.-6 p.m. daily (1 hour per session), including Saturday for *15 courses.* (Need total of 45 terminals—or total of 9 × 45 = 405 outlet times per week, which would be adequate for 100 students × 4 courses per term = 400 students per week.)

*Television cassette outlets:* Based on the ratios above, the program would need 45 cassette outlets.

*Note:* If CAI and TVC instruction were to combine in each course, the number of outlets could be reduced by half.

# Model for an Innovative Program Devoted to the Revivification of the Liberal Arts

*by Phyllis P. Bober, Commission on Undergraduate Education, July 27, 1970*

## RATIONALE

This general philosophizing is to be understood in the light of the fact that I write as a humanist and an advocate of the liberal arts. It is this tradition, in my absolute conviction, which holds the salvation for current educational problems, that is, if it is revivified as well as amplified in tune with its revolutionary orientation, if it can again serve its original purpose to develop latent potentialities in all aspects of man's social and political life, to combat hermetic specialization in modern academic "disciplines."

Note also my personal bias in terms of a belief that "general education," as it is understood in a large percentage of American colleges and universities, represents a bankrupt attempt to cope with the ills of American education. Trying to construct a common denominator in education, we end up depriving all students of the excitement of discovery of the collective life of the mind by emphasizing instruction at the expense of education, knowledge at the expense of understanding (and, now, even less than middle-class whites, can black students find "relevance" in jumping through the hoops of "this is the way it is" teaching, or generalized courses presented to outsize, passive audiences, as if the past were completed, over and done with, or as if history "which is the mind's knowledge of itself" (Collingwood) were to be eliminated in favor of a Harold Taylor conception of the "world as a teacher").

The substance of most such courses could be better acquired through a well-edited reading list than through presentation, on the one hand, by novice instructors and/or graduate students, or, on the other hand, by distinguished scholars who are brought with great fanfare to dispense the fruit of twenty years of research and reflection as the distilled essence of their respective fields. The latter is directly contrary to the highest goals of education, which surely do not lie in the materialistic acquisition of information or technology but in the discovery of man's vision of himself through concentration on the relevant *apparatus,* the means for arriving at evaluations or judgments, understanding what determines the quality of the questions each generation poses to itself, or, in a word, the processes of human rationality in terms of cumulative and unfinished experience.

On this basis, it is easy to comprehend the present-day students' revolt against traditional academic offerings in favor of "relevance" and direct "engagement"; they do not realize, for the most part, that what they desire is to recover the wholeness—what scientists might call the "unified field"— of mankind's knowledge (with a small *k*), that they are tired of a training that stresses education supposedly required by a civilization in need of technicians, specialists, those (horridly) possessed of "know-how." Like students in thirteenth-century Paris, although without being aware of it, they are really yearning after the original (and cumulatively modified) conception of a liberal arts education—a humanist interrelatedness and a relevance not to life of the moment but to themselves.

I would like to emphasize also what seems to me to be the role of history in education as well as to clarify what may well seem Romanticism in the preceding paragraph. Perhaps this seeming Romanticism only reflects what appears to be a strongly neo-Romantic current in the youth culture of the present—not just superficially in their costumes, but in the realm of communes of "natural" (eighteenth-century Rousseauian types) men and women revolting against industrialization and putting high value on improvisation or the abberrational in physical and mental activity. I have spoken with technologists and engineers who claim no interest whatsoever in the past—only in the future; but can they understand their own world if they are not aware of the continuous dialogue between intellectual abstraction and romantic empathy in human existence on this globe?

The Greeks were the first people curious about their past and this curiosity evolved from the most abstract *Gestalt* plus absolute necessity to comprehend the activity of one's mind. They invented history as something more than annals and chronicles: as romantic experience. As an extension of this today, I would argue that no one can truly comprehend the urges that have to be resolved in modern architectural and engineering practice if he is not himself able to see such a dialectic among the Greeks, sixteenth-century Mannerists, or nineteenth-century Romantics. I do *not* intend this to parallel the old saw: "history repeats itself." My point is that this is precisely what cannot possibly happen; the identical concatenation of circumstances could never appear twice, because we are the sum total of what has gone before; we are, or should be, eternally engrossed in *understanding* what happened in the light of the new terms or questions our world brings to bear on particular "events." The realm of ideas is universal and outside chronology.

All of this, it seems to me, points up the fallacy of those who regard the liberal arts—and attendant sciences—as a curriculum for the ruling elite, for the Establishment of a day when the players on the fields of Eton managed the world. In the societal context of "upward mobility" in America, parents have as a general rule shied away from what appeared to be an undemocratic and outmoded ideal in favor of direct professional training (for doctors, lawyers, dentists, business executives, and—God help them—professors). But the liberal arts, if opposed to the servile, were nevertheless originally devised to escape hermetic isolation from daily life as well as to serve the social and political aspects of culture. This original idea of the disciplined mind, of judiciousness that depended on disengagement and yet avoided isolated, ivory-tower contemplation, should be more important today than ever before in the polarized state of our society, because it is able to provide an arena for the operation of human reason and for reconciliation in the universals that give universities their etymological and intellectual foundation.

With one's focus squarely on teaching, that human imperative to transmit knowledge, the most fundamental point is: relativity versus absolutism. When education is almost universally regarded as the path to *truth* or *knowledge,* then we are in a most unfortunate position. If there is a body of information in which a student is to be instructed, then false values are established that permit parents to say, materialistically, "We have paid for thus and so and our child did not receive it." The most important goal for the college or university is to make certain that modern graduates realize that such absolutes do not exist. And the most effective means of achieving this end is to emphasize analysis of changing attitudes toward ethnocentric truths, to stress historiography and the history of science above factual content, to elicit appreciation of how our problems, our motivations, our frustrations, our attitudes, relate to human experience as a whole (not in the sense of Jungian "collective unconscious," but in full awareness of metamorphosis in the history of ideas).

In practical terms, I think most humanities professors can manage to stand outside "l'état de la question" in their respective fields, but this is manifestly more difficult for those social scientists devoted to "solving" current problems; if the concept does not at first seem applicable to the pure sciences, one must remember that synthesis succeeds analytic activity and holds the same potential for clarifying interdisciplinary relationships and the historically open-ended dialogue between selves and the world.

What this all boils down to is that no subject is without its history, its philosophy, and education must concentrate not on its autonomous value or "truth" but on the contextual fabric it serves and has served in cultural and societal modifications of the past. To take an example from my own field: the events and what are called historical facts of the Periclean period at Athens have been established for centuries, so that any new scholarly contribution in that line only affects detail. Yet, in the realm of ideas, concepts, human feelings, the "why" of that epoch and its resonance in every subsequent age, discovery cannot ever stop and keeps men eternally engrossed in the quest for insight both into what happened then as well as self-knowledge in terms of our present world. *How* did that classical age normatively reconcile such apparent opposites as freedom and slavery, physical and spiritual, actuality and the ideal, or rational and the irrational (what other day than our own could have produced such a book as Dodds, *The Greeks and the Irrational*). In what way did it inspire the subsequent reactionary attitudes of Plato or classicistic inferiority-complex theorizing in the period of Augustan Rome? Why do modern architects such as Le Corbusier or Philip Johnson borrow underlying aspects of a classical architecture that is nonfunctional in contemporary connotations of the word, etc., *ad infinitum.*

I am reminded of the experience related to me by one of the college students I have spoken with this summer. Of all the courses in English literature he had taken, he felt that only one had suited his educational diet. Whereas most left him with a mixed bag of works analyzed for ego-centered relevance (now forgotten), he was surprised and pleased to find that a reluctantly elected course in Victorian literature gave him an understanding for the period and an appreciation of the writers concerned. He attributes this purely to the fact that the instructor focused on the history of ideas, constructed decade by decade the experiential matrix into which individual works were set.

## A NEW APPROACH

Among major problems of undergraduate education stand the artificiality of procedure and enforced discontinuity that result from concurrent enrollment in four or more different courses. Monday, Wednesday, Friday, the student at 10 a.m. turns his mind to, let us say, Chaucer and the medieval world, while his attention is drawn in a subsequent period to questions of modern economics; on alternate days his classes and study normally involve entirely different, compartmentalized fields of scholarship. Might not modern education successfully replace this wasteful and staccato diffusion of intellectual effort by concentration and profitable immersion in multidisciplinary subjects elected seriatim? I envisage an academic milieu in which full use of facilities and faculties embraces an entire year divided into equal quarters. In each quarter, only one course would be pursued, but that intensively and with all the potential for independent research, for freely expanding quests into associated matters (usually set aside as temptations for which no time—or credit—is available in the competition of disparate studies). The only exception to a "schedule" of one course would involve simultaneous enrollment in a "tool" course such as language, speech, composition, etc., although a support program of prestigious campus-public lectures would be accessible to all on an informal basis (noncredit unless in certain cases a student wished to work with a tutor or teaching team to focus his independent work of the quarter on the topic of specific lectures).

Because each course would be intensive, involving the total intellectual activity of those concerned, over a period of ten weeks, the point credit for each could be sustained as ten (30 per annum; 120 per four-year curriculum without extras of language, etc.). One course or part of two would then be full teaching schedules for instructors. Normal procedure would be to select a course for three of the four quarters each year, although students who desired an accelerated program might well wish to forego the vacation period in the fourth quarter, while others might wish to utilize it for work-study activities. At any given quarter approximately one fourth of the student body and the same proportion of faculty would be on leave as normal procedure (an advantage for those professors whose fields necessitate travel, since they could plan for a spring or autumn vacation period and thus avoid the tourist glut of summer). I *think* that the ten-week schedule allows for a week of finals, papers, examinations, etc., and a week of rest between each quarter, in addition to Christmas and spring holidays, but I am not on very firm ground in calendar matters.

What distinguishes the courses is not only their concentrated nature, but the fact that they should be developed as team-taught, involving conferences and tutorials, and stressing the voluntary and potentially unlimited commitment of the individual student. (For a sequence of possible offerings, *see* page 93.)

Insofar as major concentration is concerned, the student would "contract" for an individually tailored program. The burden would be upon him to create from these offerings (supplemented in some cases by traditional courses when this seems important, if our concepts of mobility among various divisions of the University prevail and are not seriously affected by calendar discrepancies) a valid focus for his studies and to convince a faculty committee of its worth or acceptability.

*Advantages:* Places emphasis in education where it belongs—on developing the motivation and maturity of the student and giving him the option of three or four or five years of college education. Stresses the broad community of ideas rather than parochial "subject matter" of individual disciplines, while assuring that the team teaching is done by specialists rather than generalists. Keeps a financially stable relationship between small discussion groups, larger classes, and profitable superstar lectures (for which the outside public might pay as auditors). Eliminates problems of summer school while assuring that buildings, classrooms, etc., are utilized economically (although the academic year covers twelve months, any given person may choose to be present only nine; and for faculty, there should be additional leave for another quarter every third year, this obviates the necessity for complicated sabbatical planning). *Note:* If any student drops out for illness or any other reason he doesn't lose an entire semester of four to five courses, but only *one* course.

*Disadvantages:* Might weaken faculty cohesiveness and collegiality since so many are absent on leave in a given quarter. What does this do to the role of administrators and how does one plan for their relief? Science would be offered only in terms of history and concept rather than in experimental orientation, yet the program would be a good one for pre-med students as well as others. Would they be able to make some interchange with traditional divisions for requisite science breadth and intensiveness? What happens in the case of a student who feels he has made a poor choice in a particular course? By the time he regrets it, it may be too late to try an alternative, i.e., one simply cannot afford a single poor or unstimulating course; they will have to be continuously evaluated, transformed if need be, or phased out when required.

## BOBER MODEL

Typical offerings in the first year (broad interdisciplinary exploration of fundamental concepts):

1. *Philosophy of History and Historiography,* with readings in Collingwood, Momigliano, et al. (Man and the Study of His Past).
2. *Man and His Psyche:* Basic schools of psychological theory (cf., *The New York Times,* Sunday, October 11, 1970). Jung vs. Freud, Skinner vs. Chomsky on Learning, Koehler and Behaviorism, etc.
3. *Man the Discoverer:* History of science and technology as the history of ideas. Readings in G. Sarton, Lynn White, et al.
4. *Man the Creator:* What is "style" in works of art, music, literature. Readings in Ackerman-Carpenter, Boas, Meyer Shapiro (*Anthropology Today*), etc.
5. *Man the Social Animal:* Types of societal organization with collaboration of classics, history, sociology, anthropology.
6. *Man and His Habitat:* Utopianism in literature and history and its repercussions on Plato in writers, and political implications on the other hand (movements in America from Robert Owens, etc.). Participation of the Department of Politics.
7. *Man and His Ethics and Teleology:* History of religions, comparative.
8. *Man and His Communication:* Introduction to concepts of the study of language, logic, semantics, art, contemporary media, etc.
9. *Man as a Physical Organism:* Environmental biology, on the order of the new engineering and biology collaborative course at University Heights, but from the liberal arts viewpoint.
10. *Ecology:* Earth science, geology plus mathematics and languages. The mathematics organized in terms of quantum theory and Whitehead's *Science and the Modern World* (or is this too old-fashioned today?); Sir James Jeans and astronomy.

11. *The Corporate State and Its Economy,* with reference to ancient illustrations as well as the modern world (Mesopotamia, for example).

In the second and third year, area studies in geographical sense (Africa, Islam, Oriental) and in cultural sense (Age of Enlightenment, etc., plus some explorations: "The Role of Tradition and Innovation in Human Affairs," concepts of city-planning, genetic planning and ethical religions as well as scientific, psychological background).

In the third and fourth year, seminars on quite specific but still multidisciplinary problems: existentialism, surrealism, imperialism, etc. As an illustration, I cite *cubism,* which cannot be understood without reference, minimally, to Einstein's theory of relativity, idealist philosophy (see C. Gray on Cubist aesthetics), and Bergsonian conception of time; literary analogies in Joyce, Virginia Woolf, Pirandello, et al., or the music of Stravinsky and Satie.

## Model Cross-School Urban Studies Program for New York University Undergraduates

*by Suzanne G. Farkas, Director,*
*Urban and Environmental Laboratory, February 22, 1971*

### ASSUMPTIONS AND CAVEATS

1. This program is somewhat biased toward social sciences, toward students preparing for careers as urban (public or private) staff, toward *American* urban studies, and toward large cities.

2. The courses or categories suggested are not necessarily in the sequence in which they should be taken.

3. Current prerequisites, if any, for the suggested courses have *not* been included in the program.

4. Two types of courses have been omitted:

   *a*) Those with membership restricted either in size or by possibilities for undergraduate participation—small seminars and graduate courses open to advanced graduate students.

   *b*) Those which may not be permanent offerings at the University (or those with changing content)—the Metropolitan Leadership Program at Washington Square and the Urban and Environmental Laboratory Program at University Heights.

5. The program is based on the idea of maximum choice of courses, but this choice must come from within fairly well-defined categories.

6. The assumption is made that a large amount of exposure to many New York University graduate-professional schools is desirable and possible.

7. Since so many highly desirable urban courses are given at the Graduate School of Public Administration and the School of Law, it might be better for University College to work out a joint appointments system with these two schools. This might be considered for the School of Engineering and Science, too.

8. Credits assigned to analogous courses vary from school to school. University College and the School of Law, for example, usually give 3 credits for a one-semester course, while Washington Square College and the Graduate School of Public Administration give 4. The program would be designed *as if* all courses at all schools were given for 4 credits.

9. The program assumes students will take four "urban" courses per semester for four semesters (sixteen courses). Total time: courses can be taken over four years.

10. Because the program assumes that eight to ten one-semester courses could be taken at schools other than the two undergraduate liberal arts schools (exact number would vary), the approximate cost to the undergraduate schools would be between $1,800 to $2,000 per student in "loss" or "transfer" of tuition. This calculation is based on $70 per credit for seven courses (28 credits), with up to 12 credits (three or four courses) already allowable at other schools.

11. *Abbreviations*

    U: University College of Arts and Science
    W: Washington Square College of Arts and Science
    G: Graduate School of Arts and Science
    L: School of Law
    E: School of Engineering and Science
    GPA: Graduate School of Public Administration
    BPA: College of Business and Public Administration
    GUP: Graduate School of Public Administration (Urban Planning)
    Ed: School of Education
    B: Graduate School of Business Administration
    S: Graduate School of Social Work
    H: School of the Arts

12. Explanation of requirements is at the *end* of the program section.

### Category I: General Disciplinary—General Professional Courses

Seven Areas: Urban Traditions, Economics, Government, Sociology, Administration, Planning, and Law.

Requirements: At least one course from each area (seven courses from Category I).

*Area A:* Traditions—History and Anthropology. Courses available in U, W, G.

*Area B:* Urban Economics. Courses available in U, W, G.

*Area C:* Urban Government and Politics. Courses available in U, W, G.

*Area D:* Urban Sociology. Courses available in U, W, G.

*Area E:* Administration, Finance, Operations, Management. Courses available in U, W, G, BPA, E, L, GPA.

*Area F:* Urban Law. Courses available in L.

*Area G:* Urban Planning. Courses available in W, BPA, GUP.

**Category II: Urban Ethnicity—Minority Groups**

Requirements: Any one course in Category II.
Courses available in S, U, Ed, G, W.

**Category III: Urban Priorities, Policy Analysis, and Values**

Requirements: One course from Category III.
Courses available in W, BPA, G, GUP.

**Category IV: Research Methods and Analytic Skills**

Requirements: At least one course in statistics, research methods, or computer science, from any school or department.

**Category V: Urban Subject Areas of Major Concern**

Seven Areas: (A) Housing, (B) Transportation, (C) Art, Architecture and Urban Design, (D) Environment (natural, physical, social), (E) Health, (F) Social Service, Social Problems, Welfare and Poverty, (G) Labor, Manpower, Management.

Requirements: Five courses from Category V, two courses by elective and three courses according to the following distribution: one course in either Area A (Housing) or Area B (Transportation), one course in either Area C (Art, Architecture and Urban Design) or Area D (Environment), and one course from Areas E, F, or G (as above).

*Area A:* Urban Housing. Courses in GUP, GPA, L.

*Area B:* Urban Transportation. Courses in GUP, E.

*Area C:* Art, Architecture, and Urban Design. Courses in GUP, U, W, BPA, Ed, E.

*Area D:* Urban Environment (natural, physical, social). Courses in W, U, E, L.

*Area E:* Health Policy. Courses in G, Ed, GUP, GPA.

*Area F:* Social Service, Social Problems, Welfare and Poverty. Courses given in U, GUP, L, S, Ed, W.

*Area G:* Labor, Manpower, Management. Courses given in U, W, BPA, G, B, Ed, E, GPA.

**Category VI: Framework for Decisions, Events, and Processes**

Three Areas: (A) Institutions and Guidelines, (B) Mass Behavior and Community Organization, (C) Communications.

Requirements: One course from any of the three areas under Category VI.

*Area A:* Institutions and Guidelines. Courses in U, W, G, GPA, L.

*Area B:* Mass Behavior and Community Organization. Courses in U, W, G, S, Ed.

*Area C:* Communications. Courses in W, H, Ed, G.

Students following the program outlined above will have taken sixteen courses—four courses per semester for four semesters, or two academic years of an urban program. Their training will have been distributed so that each student will have had at least one course in the following areas:

| | |
|---|---|
| Urban Economics | Administration/Finance |
| Urban Politics | *Either* Urban Anthropology *or* Urban History |
| Urban Sociology | Urban Minorities |
| Urban Planning | Policy Analysis and Value Priorities |
| Urban Law | Research Methods/Analytic Skills |

Each student will have completed at least five courses in functional areas of urban concern. These will have been distributed so that a student must have a course in either Housing *or* Transportation, a course in either Environment *or* Design, and a course in either Health Policy, Social Services-Problems-Welfare, *or* Labor-Manpower. The student can choose the subject areas in which to concentrate his remaining two "subject" courses.

Finally, each student will have at least one course in the areas of Decision-Making Institutions, Mass Behavior/Community Organization, or Communications.

Within these categories, however, there are enough courses so that the topic could be approached from a number of different disciplines and perspectives. If the courses within each category are chosen properly, a student should be able to build up enough graduate credits so that if arrangements can be made, he could enter an accelerated degree program with the Graduate School of Public Administration, Urban Planning in the Graduate School of Public Administration, the School of Law, the Graduate School of Business Administration, the School of Education, or he could enter the Graduate School of Arts and Science with advanced standing.

The choices in the program can be worked out so that *economics, politics,* and *sociology* majors would be taking four to six courses (out of eight) that would count toward their majors (depending on what courses from a department's own graduate division or counterpart undergraduate division a Disciplinary Department would accept). Possibly they might need only the introductory course (which they would need anyway) and one other course to complete a departmental major. If the other course can be from one of the two other social sciences, it is possible that requirements in the urban program would also fulfill a disciplinary major in three departments. *Fine arts, anthropology,* and *history* majors would have at least two courses each.

For further information, see "Proposals for Urban Research Seminars" (November 5, 1970) and "Urban and Environmental Laboratory Program" (brochure, spring 1971), University College of Arts and Science.

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## College-Level Examination Program and Advanced Placement

*Commission on Undergraduate Education, Progress Report, December 10, 1970*

### Rationale

The Commission took as its concerns the problems of how the actual degree structures, time spans, and mechanisms of academic evaluation respond to the content of programs, the realities of high school preparation, the realities of faculty and student interests and needs, the diversities in the student population, and the need to create an attractive and financially viable private education at the University.

## General Status

The following list indicates the number of students receiving credit for CLEP tests from New York University undergraduate divisions as of summer 1970.

| *School* | *No. of Students* |
|---|---|
| Washington Square College | 0 |
| University College | 0 |
| School of Engineering | 1 |
| School of Education | 1 |
| College of Business and Public Administration | 2 |
| School of Continuing Education—Degree Programs | 0 |

## Advanced Placement

The Commission finds that the following statistics are pertinent to the Advanced Placement program:

| | *1966* | *1967* | *1968* | *1969* | *1970* |
|---|---|---|---|---|---|
| *Day Freshmen Enrollment in September for all Six Undergraduate Divisions* | 1,607 | 1,829 | 2,015 | 2,033 | 1,607 |
| *Number of Freshmen Submitting Advanced Placement Test Scores** | 249 | 287 | 337 | 336 | 311 |

## College-Level Placement Examination

The Commission was led by the above statistics to examine alternative and multiple means to give students credit and time toward degrees for work which they have done outside the Advanced Placement (usually in independent study) in high schools, and at high schools without Advanced Placement programs. Advanced Placement is limited by the presence of such courses in high schools. The Commission examined CLEP testing as a device to be utilized:

1. At the beginning of undergraduate education to accelerate the kinds of courses into which a student might opt.
2. As a recruitment device, and in this the Commission endorses the proposal of the Recruitment Committee of the Commission on the Effective Use of Resources which advocates the introduction of CLEP testing for recruitment purposes; here the Commission adds an endorsement of the educational benefits of such a proposal as well.
3. As a device to encourage students during their undergraduate careers to pursue materials not available within their colleges, or to acquire expertise through independent study which can then be credited (especially in conjunction with means provided by educational technology for self-study or supplemental tutoring).

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*For every three students about four tests were submitted. One test is equal to a one-year course.

CLEP provides a battery of college-level achievement examinations to recognize expertise, however it has been acquired. Developed by leading teachers and scholars, the examinations are generally conceived and do not induce "teaching for the CLEP exam." Some colleges accept national norms, but local norms can be determined and set by the colleges.

There are 30 subject matter examinations and 5 general examinations. The subject examinations include calculus, economics, marketing, American government, educational psychology, geology, history of American education, sociology, statistics, tests and measurements, Western civilization, etc. The general examinations are in English composition, social sciences, humanities, science, and mathematics. The subject examinations have objective portions and an optional essay part. It was pointed out that the 5 general examinations are widely used for equivalency for transfer credit. Examinations cost $5 when administered on campus and $15 at a CLEP center; the University would have to develop a position on the charges for such services, but the time and money saved by the student would be substantial.

The program is intended to eliminate the need for a student to repeat skills he has already acquired and to free him for more student-teacher contact. CLEP has also been suggested as an option which might be useful:

1. to cover introductory materials, especially in experimental programs
2. for older students returning to college work
3. for independent study programs as norms or checks against which to test such programs
4. as an alternative means to educational certification.

The Commission endorses the list of beneficial effects presented by Professor John A. Bishop to the Commission on the Effective Use of Resources:

1. "Give credit where credit is due," to encourage high school students by rewarding college-level work undertaken in independent study at schools not offering Advanced Placement. This would assist in directing high school students toward the good sense of such study.
2. Allow students to achieve credentials for graduate, professional, and speciality programs more quickly and inexpensively.
3. Increase the attractiveness of New York University to able freshmen; the City University will undertake a broad program in September 1971, and our own School of Engineering and Science will also give credit at or above the equivalent grade of B on CLEP tests.
4. Reduce the burdens of requirement structures.

Specific proposals in the individual schools and colleges will have to deal with the following kinds of limits and problems:

1. How much of such credit should be allowed overall toward a degree?

2. How much of such credit should be arranged for satisfaction of distribution requirements?
3. Should the essay portion be required on all subject matter examinations?
4. What subject examinations will departments accept toward a major in their disciplines?
5. What standards of achievement on subject matter tests will the college or school require of recent high school graduates?

The Educational Testing Service currently offers schools a free, large-scale administration of the test to current sophomores in order to assist in establishing the norms for a particular school.

## Proposal on Independent Study at University College of Arts and Science

*Educational Policy and Planning Committee,*
*University College of Arts and Science, April 9, 1971*

*A proposal for a program leading in three years to a Bachelor of Arts degree in University College of Arts and Science.*

### PURPOSE

The purpose of this program is to provide the means for a capable student to achieve the Bachelor of Arts degree in three years. The primary aim of the program is to enable our best students to study and learn at a pace congenial with their abilities and their interests.

It is important to note that this program is not designed specifically for the preprofessional student who is in a hurry to get his degree and go on to his graduate professional work. It is very likely that such a program will be attractive to preprofessional students, but the aims of the program go well beyond that group of students. It is felt that many students would like to have the opportunity to manage their own progress and to study without the various constraints imposed upon them by the academic year calendar.

We should not overlook the fact that by enabling students to achieve a degree in three years we shall be awarding scholarship aid based on merit, for it is conceivable that a student who successfully completes his program will have saved a full year's tuition plus dormitory and other living expenses. It should also be noted that a program of this type may assist us in recruiting better students.

### IMPLEMENTATION

As a first step in instituting this program, it would be desirable for each department in the College to identify at least two courses in their present curriculum that can serve as independent study courses as well as standard courses. An independent study course is one in which a student can achieve the requisite mastery of the material without attending any classes. He would demonstrate this mastery by passing an examination, with such examinations to be given at appointed times during the calendar year. Courses mastered in this way will be graded on an A, B, C, or no credit basis. "No Credit" is not to appear on the transcript.

A course designated for independent study must have a complete, detailed syllabus that provides the student with specific information regarding the purpose and content of the course and the reading material that is required and recommended.

In practice, a student would obtain the course syllabus at any time during the year, and when he felt that he was ready to take the written examination, he would notify the College administrative officer in charge of this program in writing at least two weeks in advance of the appointed examination time. The examinations will be given three times during the calendar year: examinations might be scheduled for the second week in September, the first week in February, and the first week in June. There should be an examination fee, perhaps $25, to cover the cost of proctoring and grading the examinations. A student is allowed only two opportunities to pass the examination for a particular course.

In order to guarantee some breadth in the independent study experience, a student may not take more than three courses (3- or 4-point courses) of independent study (in this form) in any one department. Furthermore, no more than 40 points of this form of independent study will be credited toward his degree.

A student will be eligible to obtain independent study credit if his cumulative grade point average is at least 3.0 at each time he presents himself for an examination. In order to provide access to such courses for incoming freshmen, provisions should be made to allow certain incoming freshmen to take advantage of these opportunities. This should be done with permission of the college administrative officer in charge of the program.

To envisage how a program of this type might work in practice, it would be useful to consider some possible student patterns. Consider, as a kind of average case, a student who registers for 15 credits for each of his six semesters. His pattern of independent study examinations might appear as follows:

| *Year* | *Examination Dates* | | |
|---|---|---|---|
| | *Sept.* | *Feb.* | *June* |
| Freshman | | 1 | 1 |
| Sophomore-Junior | 2 | 1 | 2 |
| Senior | 2 | 1 | |

*Or* a student who chooses to seek an October degree might utilize a pattern something like the following:

| *Year* | *Examination Dates* | | |
|---|---|---|---|
| | *Sept.* | *Feb.* | *June* |
| Freshman | | 1 | 1 |
| Sophomore-Junior | 2 | 1 | 1 |
| Senior | 2 | 1 | 1 |

A student who earns 16 or more credits each semester will require fewer credits of independent study. Furthermore, the number of credits of independent study needed would be reduced in the case of students who come to us with credit from advanced placement examinations.

It should be noted that a new calendar is proposed beginning in 1972 and according to this calendar, we shall have a six-week period between the fall and spring semesters. This would be an excellent time for qualified students to work on one of these independent study courses and take his examination in February. The feasibility of the June and September dates should be obvious.

### EVALUATION

The administrator of the program is to make an annual report to the faculty on the number of students involved and the status of the program.

## Joint Graduate-Undergraduate Programs at New York University

*by Richard P. Brief, Commission on Undergraduate Education, 1971*

Two new accelerated bachelor's-master's degree programs were introduced during the academic year as a direct result of the Commission's work. While the Commission did not, in general, attempt to implement its own recommendations, it was felt that the establishment of an operational model for accelerated programs would facilitate the introduction of new programs throughout the University.

Although certain administrative details remain to be worked out and some small substantive changes are expected, the essential features of each program are as described below.

### ACCELERATED PROGRAM LEADING TO A BACHELOR OF ARTS DEGREE AND THE MASTER OF BUSINESS ADMINISTRATION PROGRAM

1. This program is a joint effort of University College of Arts and Science, the School of Engineering and Science, the College of Business and Public Administration, and the Graduate School of Business Administration. The program will enable qualified students to complete both the bachelor's and master's degree requirements in five rather than six years. Other than

the specific requirements of the program, the student candidate may select any area of major specialization on the undergraduate level.

2. The basic idea underlying the program is to allow qualified students to satisfy the core requirements for the M.B.A. degree while in undergraduate status. The Graduate School of Business Administration requires 12 units in core courses in the following areas: accounting, banking, economics, finance, management, marketing, behavioral science, and quantitative analysis. The undergraduate student accepted in the program can satisfy these requirements by successfully completing these core courses at University College, the School of Engineering, or the College of Business and Public Administration.

3. Admission to the program is open to students who have completed 75 credits with a grade point average of 2.8 (B—) or better. Such students will be admitted to the Graduate School of Business Administration upon graduation with advanced standing for the equivalent course work completed (*see* 4 and 5, below). Transfer students from accredited institutions must complete at least one year of study at New York University before making application and have completed 75 credits with a grade point average of 2.8 or better.

4. The course equivalencies between the Graduate School of Business Administration and University College, the School of Engineering and the College of Business and Public Administration that have been approved by departmental chairmen at G.B.A. are given below.

| | | | |
|---|---|---|---|
| B10.2012 | Fundamentals of Accounting | U31.0021-0022 | Business Accounting I and II (subject to approval) |
| B15.3201 | Banking and Financial Markets | U31.0051 | Money, Banking, and Prices |
| B25.2302 | Corporate Finance | C15.0001 | Corporate Financial Management |
| B30.3201-3202 | Economic Analysis | U31.0010-0011 | Introduction to Economics I and II |
| B65.2205 | The Management Process | C50.0001 | Management and Organizational Analysis |
| B65.2206 | Behavioral Sciences in Business | T58.0083 | Industrial Psychology |
| B70.2203 | Marketing Principles and Practices | C55.0001 | Markets and Marketing Methods |
| B90.2201 | Quantitative Methods for Business I | U63.0013-0014<br>T63.0021-0022 | Fundamentals of Mathematics I and II, *or*<br>Calculus I and II |
| B90.2202 | Quantitative Methods for Business II | U31.0015<br>T58.0060 | Introduction to Statistical Methods, *or*<br>Engineering Statistics I |
| B90.2203 | Quantitative Methods for Business III | T58.0066<br>C22.0002 | Methods of Operational Analysis, *or*<br>Quantitative Analysis of Business Operations |

5. Students at University College may also get credit for B30.3211 and B30.3231, Microeconomics I and Macroeconomics I, by taking U31.0063 and U31.0064, Microeconomic Theory and Macroeconomic Theory. However, no more than 12 units in advanced standing may be awarded to a student in the program.

6. A student admitted to the program does not have to complete all G.B.A. core requirements to receive his undergraduate degree and to qualify for continuation at G.B.A. Although the program is designed to allow for a full year (or a maximum of 12 course units) to be completed for advanced standing at G.B.A. during a student's undergraduate years at University College or the School of Engineering, the student may take fewer courses for advanced standing if he wishes. He will be given advanced standing for any G.B.A. core course satisfied in 4 above, provided he receives at least a C in that course and maintains an average of at least 2.8 for all such courses used to obtain advanced standing. (A student must receive a letter grade for course work prescribed by the program; he may not elect a pass/fail grade for these courses.)

7. Each student in the program must take the Admissions Test for Graduate Study in Business prior to entering the Graduate School of Business Administration.

8. The Department of Economics at University College will be responsible for administering the program. In exceptional cases the Department of Economics may request that certain provisions of the program requirements be waived but final decisions on students who do not meet such requirements will be made by the Graduate School of Business Administration.

## ACCELERATED PROGRAM LEADING TO THE BACHELOR'S DEGREE IN ENGINEERING AND THE MASTER OF BUSINESS ADMINISTRATION

### General Purpose of the Program

Effective September 1971 the School of Engineering and Science will cooperate with the Graduate School of Business Administration in an accelerated program that can lead to the degree of Master of Business Administration in one or one and one-half years of additional graduate study in lieu of the two years normally required. The program, which will be open to outstanding undergraduates, will permit the student to take certain undergraduate engineering and liberal arts electives that can be counted toward the graduate requirements for the master's degree. The actual number of graduate equivalent credits that can be earned while an undergraduate depends on the specific engineering program.

### Degree Requirements for the Master of Business Administration

The Graduate School of Business Administration requires 48 credits (or 24 G.B.A. "course units") for the master's degree. Twelve of these course units must be in "core subjects" which include accounting, banking, economics, finance, management, behavioral sciences, and quantitative analysis. Twelve course units must be in advanced G.B.A. subjects.

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A student may be permitted up to 12 course units for advanced standing as an undergraduate by having satisfactorily completed selected courses for which an equivalent credit will be granted by G.B.A. Normally these courses must be in the "core area" (denoted by "A" below) although up to 4 course units may be in advanced areas (denoted by "B" below). Depending on their engineering field, students should expect to gain from 6 to 10 units of equivalent advanced standing.

## Admission to the Program

Admission to the program is subject to approval by the Associate Dean of the Day Division. To be eligible for the program, a student must have:

*a*) An overall average of B— or better

*b*) Completed the first term of his junior year *and* a minimum of 30 credits while registered in the School of Engineering and Science (applicable to transfer students).

Advanced standing in G.B.A. may be granted for courses in which a letter grade of C or better has been obtained. Pass grades (P) will not be accepted. An overall average of at least 2.75 on a 4.00 scale must be obtained in the courses that are proposed for equivalency credit.

When eligible, the student should file a letter application with the Associate Dean. On successful completion of the program, the student will be admitted to the Graduate School of Business Administration following graduation with the bachelor's degree.

Formal admission to G.B.A. will require the filing of the New York University graduate application form during the senior year together with submission of a transcript and a letter from the Associate Dean indicating that the student has been pre-accepted to the program. This application should also be accompanied by a letter outlining which of the equivalent courses listed below will have been satisfactorily completed (C or better) by the end of the senior year. Final equivalency credit will be granted following confirmation of a satisfactory grade point average in the courses proposed for advanced standing. Before starting actual course work at G.B.A., students must take the Admissions Test for Graduate Study in Business.

## Course Equivalence

Equivalent courses may be taken as part of the student's regular program, as technical electives or as general studies electives as indicated below. Technical electives require the approval of the student's major engineering department. G.B.A. courses are denoted: (A) for core courses, (B) for advanced courses, with a maximum of four (B) courses permitted.

1. *The following courses will automatically be granted equivalence credit:*

| *G.B.A. Course (1 course unit each)* | *School of Engineering or University College Course* |
|---|---|
| B90.2201 Quantitative Methods for Business I (A) | T63.0021-0022 Calculus I and II<br>(provided a C average or better is obtained in both of them) |

2. *The following courses may be selected as general studies electives:*

| *G.B.A. Course (1 course unit each)* | | *School of Engineering or University College Course* | |
|---|---|---|---|
| B30.3201 | Economic Analysis I (A) | U31.0010 | Introduction to Economics I |
| B30.3202 | Economic Analysis II (A) | U31.0011 | Introduction to Economics II |
| B15.3201 | Banking and Financial Markets (A) | U31.0051 | Money, Banking, and Prices |
| B30.3211 | Microeconomics I (B) | U31.0063 | Microeconomic Theory |
| B30.3231 | Macroeconomics I (B) | U31.0064 | Macroeconomic Theory |

3. *The following courses may be taken as technical electives subject to approval of the student's major department.* Many of them are in the required program of the Department of Industrial Engineering and Operations Research.

| *G.B.A. Course (1 course unit each)* | | *School of Engineering or University College Course* | |
|---|---|---|---|
| B65.2206 | Behavioral Sciences in Business (A) | T58.0083 | Industrial Psychology |
| *B90.2202 | Quantitative Methods for Business II (A) | T58.0060<br>T63.0063 | Engineering Statistics, *or*<br>Probability and Statistics I |
| *B90.2203 | Quantitative Methods for Business III (A) | T58.0066 | Methods of Operational Analysis I |
| B75.2210 | Matrix Algebra (B) | T63.0051 | Linear Algebra and Geometry |
| B90.2204 | Operations Research Methods (B) | T58.0076 | Methods of Operational Analysis II |
| B90.2217 | Statistical Inference (B) | T58.0076<br>T63.0064 | Engineering Statistics II, *or*<br>Probability and Statistics II |

4. Additional equivalent courses may be approved in the future. Courses currently under consideration for equivalence are:

| *G.B.A. Course (1 course unit each)* | | *School of Engineering or University College Course* | |
|---|---|---|---|
| †B10.2012 | Fundamentals of Accounting (A), *and* | U31.0021-0022 | Business Accounting I and II |

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*Also offered as B90.2023 for 2 course units.
†Counts as 2 course units.

which may be open as a technical elective subject to permission of the student's major department. A list of additional courses, once approved, will be maintained at the Recording Office of the School of Engineering and Science, and students should check with that office before making a final course selection.

For further details, please contact: Associate Dean (Day Division), School of Engineering and Science, South Hall, ext. 227.

The essential feature of the two programs relates to the identification of certain courses given at the undergraduate level which can be used to obtain advanced standing at the graduate level. Another model for acceleration, which has been used by the College of Business and Public Administration and the Graduate School of Public Administration, permits the undergraduate to accelerate by allowing him to take graduate courses as an undergraduate. The principles of this accelerated program leading to the Bachelor of Science degree in Business Administration and the Master of Public Administration degree have been agreed on. However, at the time of writing this Appendix, certain details of the program have not been made final.

### Graduate School of Public Administration

There is already an agreement between the Graduate School of Public Administration and the College of Business and Public Administration in which undergraduates may take certain graduate courses as electives, and in which some of the core courses in the College are credited toward graduate G.P.A. requirements. Also, outside our range here, the Graduate School of Public Administration is negotiating with the School of Engineering (Graduate Division) for a joint degree. The administrators of the Graduate School of Public Administration discussed several models that might provide the basis for negotiation:

1. The pattern of the program with the College of Business and Public Administration could easily be adapted to other schools; the problem with University Heights is geographic, but that also could be managed.

2. Undergraduates might take a series of courses open to them in the Graduate School of Public Administration, in urban planning, for example, either for interest or connected to a planned undergraduate program, or for the latter use, or for both. Right now the only formal system allows undergraduates to take graduate courses for the undergraduate degree, but provides no saving of time if the student goes on to the graduate program. Changes could be negotiated with individual schools, at substantial savings and great help to students.

In all these matters, administrators in the Graduate School of Public Administration indicated that most problems of articulation can be resolved with full discussion between concerned schools.

### School of Medicine

The School of Medicine discussed a variety of experiences at other institutions with two-year entry into medical schools, especially at Northwestern, Boston University, and Johns Hopkins. Northwestern created two very special years of college followed by a four-year medical experience; Boston University selected students from high schools and introduced them into medical schools; Johns Hopkins created a combined program for twenty-five highly selected students.

The School of Medicine's problem is the large number of applications, and the small number of places available. School of Medicine administrators emphasized the need to expand the number of places. Right now the problem is in the first year basic sciences.

Two approaches emerged for later discussion:

1. That undergraduate curriculum might be organized to provide basic courses supervised or approved by the School of Medicine faculty that would enable students to leap the log-jam.

2. There is an interest in identifying students early in undergraduate years and giving them a joint program in the last two undergraduate years that would maintain their interest, relieve pressure, and encourage a rational educational program by guaranteeing admission to the School of Medicine, and, for some, shorten the time span. This is an especially important idea from the perspective of disadvantaged students. Examination of the concept of early identification is being pursued.

## Other Schools

Exploratory talks have also begun with the Graduate School of Social Work, School of Education (Graduate Division), School of Law, College of Dentistry, and School of Engineering and Science (Graduate Division), and are being pursued. (A member of the Commission, for example, presented some of the thoughts of the committee to the Faculty Retreat of the School of Law.) The Graduate School of Arts and Science presents another area of concern, for here articulation is directly related to the amalgamation that is under way between the arts and sciences at the Washington Square Center.

# APPENDIX IV

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# Some Notes About Continuing Education in Degree Work

*by Herbert Jaffa, Commission on Undergraduate Education, October 1970*

## A POINT OF VIEW

Not only the development of new options and possibilities to more creatively serve the heterogeneity of its existing undergraduate student body, but also an increased sense of adventurousness and concern to identify and recruit other types of undergraduate students—this should be the natural impulse of an urban and private university that, from its beginning, has taken the radical position of organizing itself in "the public interest" and dedicating itself to serve the needs of the community.

A concept of continuing degree education that defines "continuing" with terms that imply (*a*) a relatively long period of interrupted education that begins (continues) again and/or (*b*) a second opportunity for an education that was never offered or not accepted when offered, would help to identify these other types of undergraduate students. These, primarily, would be (1) older—over 21—working adults and (2) young—under 21—nonworking, recent high school graduates.

To some small extent New York University has identified and recruited these types of students: type (1), primarily through its Associate Degree programs, type (2), primarily through its supportive program directed by Lewis Clark. Both programs are restrictive, however; the former in that opportunity for upper-level baccalaureate work is diminishing, the latter in that the supportive work that provides a second opportunity for college work is limited primarily to black students.

Two recommendations are offered to more adequately serve the concept of continuing degree education. In terms of (1) the older—over 21—working adult, an upper-level seminar and independent study program is recommended, that would permit the adult to complete his baccalaureate in arts in the evening. In terms of (2), the younger—under 21—recent high school graduate not immediately admissible to the University's senior colleges, a junior liberal arts college (transfer) program is recommended, that would permit the high school graduate to prove his ability to do upper-level work, either in one of the senior colleges of the University or in the Upper-Level Seminar and Independent Study Program.

## I. The Upper-Level Seminar and Independent Study Program

The program might be divided into (1) on-campus periods of required seminar and prescribed tutorial study and (2) off-campus periods of primarily independent study. There might also be (3) informal periods involving optional seminars and optional tutorial study. Depending on the student, the program may be completed in two years or three.

The first period of the program, encompassing the first year, might require that the student attend a first semester seminar on "The Renaissance," for example, and a second semester one on "The Modern Period." Each seminar would cut across all the disciplines, using them to discover a historical period and its relevance to the present. In terms of time, each seminar would meet once a week for four hours, over a 15-week period. The seminar might take place on Friday evening or Saturday morning.

Re *obligations* of the "first year" students: they would be responsible for a basic interdisciplinary list of readings that would backbone the seminar. In addition, each student might develop a bibliography, apart from the basic list, that would support research for a "small paper" in the first semester and a "large" one in the other. That is, we might hope that the student would be responsible to the seminars in the first-year period for two carefully documented papers.

In terms of *evaluation* during the first year, it might be that the student is examined, two or three times, on his understanding of the readings on the basic list. There would be no grades attached to these examinations, but, together with critiques they would be returned and discussed. The examinations would be intended primarily to stimulate the student and add a dimension, other than that of seminar participation, to the seminar leader's appreciation of the student's progress. At its best the seminar would be "a coming together" of a group of students with scholarly interests in the Renaissance and the modern period. Each student would be expected to contribute to the general concerns of the seminar, but each also would be *expected to gradually sense his own special inclinations and interests* and, aided by the seminar leader, begin to move in his own direction.

In the summer after the first year of the program, the student engages in a concentrated period of reading during which he prepares himself for a September comprehensive examination in the humanities and social sciences with an emphasis on the relationship between the Renaissance and the modern period.

After the September *examination* and early in the fall semester, the "successful" student, in consultation with his seminar leader, might be ready to choose an area of study in the humanities or the social sciences which he wishes to pursue *independently*. Certainly, available to the student in the beginning of this second (off-campus) period of the upper-level program would be faculty members to talk with as well as a series of optional *supportive* seminars (perhaps three each semester) in the humanities and the social sciences. The emphasis in these seminars might be on subjects or problems that cut across periods of time (from the ancient world to the modern world). Thus, growing out of the special needs of students in the supportive humanities seminar, there might be sessions on "Romanticism (from Longinus to Lovejoy)," or the "Genesis of Paradox," or "Painting as a Social Protest over the Centuries," or "Black Comedy and Pop Art." Similarly in the social sciences seminar there might be sessions on trends in the "Formation of the Modern State," or "Religion and Science Since the Seventeenth Century," or "Anti-Intellectualism over the Ages," or "The Evolution of the Welfare State," etc. The social science seminar might include a session on "Freedom in the Western World" or on "Concepts of Justice," etc. One sees the independently working humanist students returning to the campus to sit in on supportive social science seminars dealing with "Swift on Liberty" or "Martin Luther King on Freedom."

In this second (and for some students) final year of the program, the student has chosen an area of study within his discipline, is reading deeply within that area, and is researching and writing a major paper on an aspect of that area. The student is working *independently*, calling on an adviser via mail, telephone, or in person, when need be. In addition, he may also find it useful to meet in a small tutorial group. Also, the student, working independently, may gain support from some *television* programs that might be specifically offered for the first-year students, but which would also be useful to him. These programs might be University produced programs (e.g., "Sunrise Semester," etc.) or public service or commercial programs of special interest to the student.

At the end of the year, the candidate for the A.B. might be given a *comprehensive* examination on the area of his concentration within the humanities or social sciences. The grade on the examination, together with the quality of his major paper and the guide of the first year's comprehensive are the *criteria* for the awarding of the degree.

Basic criteria for *admission* to the upper-level program from *within* the University would be the University A.A. or A.A.S. (Business) or A.A.S. (Public Service) degree or the equivalent of 64 credits from any of the University's four-year colleges. In some cases, applicants from within the University would be asked to attend a number of sessions of an interdisciplinary orientation seminar. Admission from *outside* the University would be based on (1) Adult Admission Test scores somewhat higher than those required for admission to the Evening Associate in Arts Degree Program and (2) a personal interview. In addition, as a result of the interview, the applicant might be asked to (3) write an essay in the humanities or the social sciences and/or (4) attend several sessions of an interdisciplinary orientation seminar.

## II. The Junior College (Transfer) Program

The junior liberal arts college (transfer) program, awarding an Associate in Arts degree after two years of full-time study, might use as its *curriculum* a modified version of the fixed course of study presently being offered in the University's evening Associate in Arts Degree Program.

Four prescribed courses, each carrying a 4-point value (a 16-point total), might be offered twice a week during each of the four semesters of the program. The classes might be *scheduled* three days a week or one night and two days, one of which might be a Friday. Beginning in the second year (the third semester of the program), the student would be given an option (the only one) of choosing a year of foreign language *or* a year of another mathematics course and one in statistics. There would be no summer classes, but an extensive summer reading and supportive program. Only September admission to the program would be possible during its first few years.

Academic criteria for *admission* to the "Second Chance" program might be (1) the high school diploma, (2) the high school average (between 75-78), the SAT scores (between 400-450, with the higher score sought in the verbal),* (3) the personal interview, and, when necessary, (4) the scores of an RI or Cooperative Culture test indicating a minimum of a 12th grade reading level.

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*High school average might be dropped to about 73, and SAT to under 400.

Anticipated *freshman class* for the first year of the transfer program might be drawn primarily from those applicants seeking admission to one of the four-year day colleges of the University. Certainly there would be some recruitment of specific *day A.A. students,* but, at least for the first year of the program, emphasis would be on a process that would involve the *assignment* to the program of academically disadvantaged Washington Square College, School of Education, and College of Business and Public Administration applicants.

## SOME BUDGETARY CONSIDERATIONS

A little spinning of the wheels is involved here, but the following items re the day A.A. (junior college) program, which seem reasonable, have application, in part, to the evening A.B. (seminar and independent study) program. The instructional needs of the latter would be somewhat different from that of the former, but the anticipated size of the first year class in both programs would be the same (100 students)* as would the minimum amount of tuition. Here are items relating to income and direct costs in the day Associate in Arts Degree Program:

1. 100 freshmen students × $2,000 tuition† = *$200,000* income.

2. The equivalent of four teachers for each section or seminar group of 25 students, such teachers being paid on:

   *a*) a part-time or overload basis of $2,000 per course, adding up to a total of $8,000 per semester ($16,000 annually) or a grand instructional total of $64,000 for the year for the four seminars.

   *b*) a full-time basis of $10,000 per year for a three-course (12 credit) load each semester, adding up to less than $8,000; the cost of each course would be under the $2,000 of *a*), above.

   *c*) a prorated basis, probably adding up to a $2,000 + figure for each course.

   Whatever the combination of *a*), *b*), and *c*), an *instructional cost of between $60,000-$70,000* seems reasonable.

3. Administration, admissions, counseling, testing costs should total close to *$45,000* (e.g., Director, $15,000; secretarial, $5,000, etc.)

4. Advertising and promotion would probably come in near $5,000-$8,000.

5. Classroom and office supplies, equipment, etc., costs would total around $3,000-$5,000.

Looking back and forward and assuming income from 100 freshmen and a maximum direct expense load of $128,000 (items 2, 3, 4, 5), I see a day A.A. project as a black ink item.

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*For the A.A. transfer program, 100 students is the most minimum and conservative estimate. A 250-300 freshman class is not an unreasonable figure.

†Old tuition figure.

## Proposal for an Interdisciplinary-Undergraduate Major in Biomedical Engineering

*by Gary Heberlein, University College of Arts and Science, and William Krummel, School of Engineering and Science, 1971*

### I. Nature of the Major

Biomedical engineering is the discipline concerned with the application of physics, chemistry, and the engineering sciences to biology and medicine. This covers a broad spectrum ranging from formalized mathematical theory through experimental design, from technological development to practical clinical applications. For example: mathematical models of biochemical reactions, synthesis and development of instrumentation and data-processing systems, design and construction of devices such as pacemakers for medicine and scintillation counters for biological research.

### II. Rationale for Implementing a Biomedical Engineering Major

A. Students have expressed an interest in the program.

B. A need exists in the life sciences for workers well trained in the methods and technology of physical science and engineering. A need exists in the physical and engineering sciences for workers with an understanding of biology, and the life science methodology.

C. The major should help to attract new students to the University Heights Center.

D. With the exception of one new course (biomedical engineering, *see* page 124), the courses required for the major are already being offered at the University Heights Center.

E. The major could be implemented at little or no cost.

### III. Who Might Select a Biomedical Engineering Major

A. Students wishing to pursue careers in medicine, research, industry, teaching, and/or administration.

B. Engineers seeking a greater than normal complement of liberal arts courses.

C. Students who are uncertain as to whether they should pursue careers in the basic or applied sciences.

D. Students wishing to prepare themselves for graduate work in biology, engineering, or an interdisciplinary field involving both of the aforementioned.

E. Students with an interest in comprehensive science.

F. Terminal students with an interest in: hospital computer programming; design, development, and/or sales of medical and scientific instrumentation, etc.

## IV. Suggested Program for Biomedical Engineering Majors

A. Responsibility for administrating the major and advising students will reside with the Chairman of the Department of Biology.

B. All courses taken toward fulfillment of the major will be credited toward a University College Bachelor of Arts degree regardless of whether the courses are given in University College or in the School of Engineering.

C. The success of an undergraduate interdisciplinary major depends greatly on having at least one key course that provides cohesiveness, and a sense of direction to the program. To this end each major will be required to take "Introduction to Bioengineering" in his junior year.

D. The Curriculum:

*Freshman Year*

| | | *Credits* |
|---|---|---|
| Chemistry (U25.0011,0012 and U25.0027,0028) | | 10 |
| Mathematics (U63.0021,0022 or U63.0023,0024) | | 8 |
| Electives | | 14 |
| | Total | 32 |

*Sophomore Year*

| | | *Credits* |
|---|---|---|
| Biology (U23.0011,0012) | | 8 |
| Physics (U85.0011,0012) | | 8 |
| Mathematics (U63.0031,0032) | | 7 |
| Electives | | 9 |
| | Total | 32 |

*Junior and Senior Years*

*a*) Area Requirements:

| | *Credits* |
|---|---|
| Chemistry (U25.0031,0032 and U25.0033,0034) | 10 |
| Mathematics (U63.0046 or one course from U63.0056, U63.0057, U63.0058, U63.0061) | 3 |
| Biomedical Engineering (new course) | 3 |
| Physics (U85.0009) | 3 |
| Computer Methodology (T58.0061 or T34.0032) | 2 |
| Electives | 6 |

*b*) Basic Engineering Sciences:

Minimum of 14 credits (including no less than 3 credits from laboratory courses) from 2 or more of the following areas.

| | | *Credits* |
|---|---|---|
| Electrical Circuit Theory | | |
| Computer Science (beyond T58.0061 or T34.0032) | | |
| Materials Sciences | | |
| Fluid Mechanics | | |
| Physical Chemistry | | |
| Solid Mechanics | | |
| Information and Systems Science | | |
| Electrophysics | | |
| Air and Water Resources Engineering | | |
| | Total | 14 |

*c*) Life Sciences:

Minimum of 15 credits from the following list.

| | | *Credits* |
|---|---|---|
| Ecology with Lab. | (4) | |
| Biochemistry | (5) | |
| Cell Physiology | (4) | |
| Comparative Physiology | (4) | |
| Biological Clocks | (3) | |
| Microbiology | (4) | |
| Developmental Biology | (4) | |
| Comparative Anatomy | (5) | |
| Vertebrate Nervous System | (4) | |
| Experimental Psychology | (3) | |
| Biophysics | (3) | |
| Special projects in bioengineering (*see* page 126) | (6) | |
| Total | | 15 |
| Four-Year Total | | 120 |

COURSE OUTLINES

### I. **Introduction to Bioengineering** (3 credits)

*Proposed Syllabus*

| *Week* | *Topic* |
|---|---|
| 1 and 2 | Introduction—The concept of the "models" in the sciences. Classification of models. Examples of mathematical models for simple growth processes. |

| *Week* | *Topic* |
|---|---|
| 3 | Basic subcellular processes. The enzyme-mediated reaction in metabolic processes. Models of multistep reaction processes. Inhibition and feedback in the regulation of metabolic processes. |
| 4 and 5 | Biophysics of the cell membrane.<br>Transport mechanisms.<br>Properties of excitable cells, nerve, and muscle. |
| 6 | Radioactive "tracer" techniques in biological experimentations. Compartment analysis models. |
| 7 | Nerve cell and skeletal muscle electrical and mechanical analogues. |
| 8 | Closed loop control system models of the monosynaptic reflex arc. |
| 9 | Introduction to biomechanics. |
| 10 | Introduction to the application of fluid mechanics to flow in the blood vessels. |
| 11 | The bioelectric source in a volume conductor.<br>The relationship between excitation of heart muscle and the ECG. |
| 12 and 13 | Electrical systems for the heart, ECG, pacemakers. |
| 14 | Computer-aided diagnosis. |
| 15 | Systems analysis in environmental problems. |

### II. Special Projects in Bioengineering (3 credits/semester)

Will consist of independent undergraduate research in areas of biomedical engineering.

## The College of Basic Liberal Studies at New York University

*by Raymond J. Brienza, Arnold L. Goren, and*
*Herbert B. Livesey of New York University, Spring 1970*

It is proposed that New York University establish a lower division two-year college offering basic general studies in the liberal arts and sciences. The following suggestions and observations are intended primarily to offer a basis for further discussion.

### Purpose

To offer educational opportunities to students of adequate college aptitude and motivation who have not yet performed academically on the level sufficient to permit admission to the four-year divisions of the University; to provide an alternative to transfer students who have failed to perform satisfactorily at other colleges and universities but whose credentials at the time of graduation from high school would have permitted admission to one of our four-year undergraduate divisions.

### Structure

The proposed College of Basic Liberal Studies (identification purposes only) could have two primary components: a "Weekend Division" permitting full-time study on Fridays and Saturdays (and perhaps Sundays) and a "Late Afternoon Division" (4 to 6 p.m.) for students unable to attend on Fridays and Saturdays for religious or other reasons. We might also wish to consider inclusion, under the umbrella of the College of Basic Liberal Studies, of the several Associate Degree Programs, and, perhaps, the existing Opportunities Program. Among the principal advantages of these two major divisions of the College would be: (1) the opportunity for remedial work through existing services of the University, such as The Reading Institute and the College Preparatory Program; (2) full utilization of present physical facilities during periods of minimal use; (3) the availability of adjunct faculty at times of light regular course loads; (4) the opportunity for students to devote substantially greater contiguous periods of time to employment, research, study, and participation in extracurricular activities.

The curriculum would be composed of a carefully selected and restricted number of basic courses in liberal arts and sciences of a type common to most four-year degree programs. It would probably be necessary to confine science courses to those requiring the minimum availability of laboratory facilities. The courses should be traditional in content (although not necessarily in method) and carry full credit. Class enrollment should be comparable in size to those of our coordinated liberal studies programs in the four-year divisions.

### Admissions

We suggest that this progress in two stages. For the first year admission would be offered to virtually all applicants rejected by the four-year divisions. With an overall rejection rate each year of some 1,400 freshman applicants, we can anticipate a potential first-year enrollment of approximately 250-300 freshmen. To supplement the first group, we might contact the more highly regarded engineering schools (and perhaps liberal arts colleges) in this region and offer the possibility of admission to a limited number of students either on academic probation or to those who are dismissed for academic reasons and who come with the recommendation of the dean of their previous institution. Selective canvassing could ensure that such students would be those who would have met our normal entrance requirements had they applied to us as high school seniors. In this way, we would be able to offer an alternative to capable students who, under these circumstances, normally are expected to find what most colleges describe either as "meaningful employment" or attendance as a nonmatriculant at another college. Since they would be permitted full-time status, they would also be able to retain their Selective Service deferment.

It is well known that colleges typically require students dismissed for academic reasons to find other institutions at which to revalidate initial evaluations of aptitude and motivation. Too often, such students can find no such opportunities.

In the second phase, the College of Basic Liberal Studies could consider direct applications (1) from potential freshmen without the restriction that they first apply for admission to the four-year divisions and (2) to transfer students in good standing at previous institutions who nevertheless fail to meet entrance requirements for the four-year divisions. This arrangement would suggest a first-year enrollment of 325-400, and a second-year enrollment of 700-800. This would probably be a reasonable level to maintain beyond the second year.

Freshman applicants would simply be required to possess a high school diploma (not necessarily from a college entrance program), or its equivalent. SAT results would be required, but scores as low as 350 would be regarded as adequate. Adults with interrupted education would be asked to take the University's Adult Admissions Test. The possession of a high school equivalency diploma based on the General Educational Development Test would also be adequate. Unlike the four-year divisions, no minimum score would be required on the GED other than that mandated by the state awarding the equivalency diploma. There would be no minimum or maximum age limits, and students would be eligible for either full- or part-time attendance in either of the two divisions of the College.

Offers of admission would be made with the express stipulation that admission and satisfactory academic performance in the College would in no way guarantee eventual transfer to one of the four-year divisions. To drive this point home, students in the College might be required to remain in attendance for at least one year of full study (or the equivalent), maintain an average of 2.7 or better, and obtain the recommendation of the dean of the College to be eligible *for consideration* for admission to one of the four-year divisions.

The two-step procedure, and restricted dissemination of information for the first year would permit us a period of time to evaluate the progress and effectiveness of the College prior to widespread knowledge of its existence.

Since offers of admission would be made only to freshman applicants rejected by the four-year divisions and to a limited number of potential transfer students, there would be no need for a massive publicity campaign (with unpredictable results) in the relatively short period of time left to us between approval of this College and September 1970.

### Disadvantaged Students

The "open admission" aspect of this proposed College obviously suggests the need for opportunities for educationally deprived members of minority groups, including disadvantaged whites. Student, faculty, and community demands for financial aid and educational support in the College are inevitable. Therefore, we suggest that the present Opportunities Program be expanded from an existing commitment of 60 freshmen per year to 100 freshmen per year and that the additional 40 be students enrolled in the College of Basic Liberal Studies. This could be accomplished, in all likelihood, with rather modest increases in staff and expenditures. These students would, of course, be eligible for financial aid through the Martin Luther King Fund (which would not necessarily have to be increased). This action would permit us to offer admission to such students amounting to more than 13 percent of the projected first-year class.

### Financial Aid

Other than the arrangement outlined in the preceding paragraph, financial aid would not be available to enrollees in the College, although the customary assistance of the University Financial Aid Office is available in seeking student loans, jobs, and such governmental assistance as the New York State Scholar Incentive Award.

## Faculty and Staff

The administrative staff would consist of one dean, one assistant dean, one assistant to the dean. The admissions, financial aid, and probably registrar functions could be handled, at least for the first year, through existing offices and personnel in those areas.

Assuming the suggestions outlined above regarding class scheduling are acceptable, a College faculty of full-time instructors averaging two courses apiece would have to number 25 professors, at minimum, and preferably 40. Presumably, the faculty of the College would be a combination of both full- and part-time instructors. Assuming various proportions of each, the full faculty could number as many as 60. This maximum number would have to be nearly doubled for the projected second-year enrollment noted above.

These faculty estimates are based on the assumption that 8 classroom hours would be offered on both Friday and Saturday and that 2 classroom hours would be offered each afternoon (probably from 4 to 6 p.m.), Monday-Thursday. This would enable students in the Weekend Division to complete 16 semester hours of credit each semester by attending only on Friday and Saturday which would demand that full-time students in the Late Afternoon Program would attend classes 2 hours each day, Monday-Thursday, making up the remaining time on Friday or Saturday. The disadvantage here is that the Late Afternoon Program is suggested as an alternative for students who cannot attend Friday and Saturday. This would reduce the effectiveness of the Late Afternoon Program, but classroom space is at a premium before three o'clock in the afternoon and after six o'clock during the regular week.

## Budget*

Tuition income for the College for the first year, assuming a base of 300 full-time students (and not allowing for part-time enrollment) would be $650,000. An extremely rough estimate of expenses for salaries, publications, maintenance of facilities, and allied costs would be about $242,000. No new facilities other than those for the offices of the administrative staff of the College should be required, at least for the first two years. Tuition income for the second year (employing the same assumptions) would be $1,210,000 but costs would be less than doubled as a result of equipment and publications already absorbed in the first year of operation. These estimates of income do not include the sizable potential for part-time students. (It is recommended that part-time study in the College be limited to preserve the unique flavor of the basic concept.)

It is our contention that the proposed College of Basic Liberal Studies fulfills a legitimate academic need in offering alternatives to existing two-year colleges. It would offer the chance for students normally restricted to two-year college attendance to be affiliated with a major urban university of national reputation with a general student body regarded as among the most able in the country and with an internationally known faculty of impressively high caliber. This would make the College of Basic Liberal Studies more attractive to students who have been limited to much less appealing institutions and facilities.

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*Proposal was intended for the fall semester 1970. Calculations are therefore out of date.

## Position Paper of the Committee on Educational Technology

*Commission on Undergraduate Education, Progress Report, December 1970*

Investigations by this committee of the Commission on Undergraduate Education thus far have revealed that the availability of sophisticated technical devices far exceeds the educational knowledge of how to use them effectively in the educational process. The problem clearly lies with our lack of understanding about the phenomena of learning. Nevertheless, devices such as closed-circuit television, computers, and teaching machines are being put to very effective use in many undergraduate colleges. Furthermore, our findings indicate that as educators become more familiar with the educational opportunities provided by computers and television, and as we improve our understanding of the learning process, technology will play an increasingly important role in undergraduate education.

Thus far, New York University has failed to stay abreast of the advances that have been made in educational technology. In those few cases where closed-circuit television has been used it has been on a very haphazard basis. At present, there is no facility to provide either equipment or technical advice to faculty members who might like to experiment with closed-circuit television in their teaching. The same can be said for computer-assisted education devices.

There are two distinct ways in which technology can be used in education: (1) as a potential means of conveying information to large numbers of people on an impersonal and often formal basis in the absence of a "warm" body; and (2) as a means of enhancing the learning process that occurs in the framework of a student-teacher relationship. The investigations of the committee were restricted primarily to the latter category since it was felt that too little is known about the long-range educational value of the former to justify its implementation at the University in the immediate future. Our studies have revealed that there are many ways in which closed-circuit television, computers, and teaching machines might enhance the quality of undergraduate education at New York University. For example, physicists, chemists, anthropologists, biologists, and artists can bring laboratory and field studies into the classroom. By simply attaching a television camera to the eye of a microscope what was previously only available to one person becomes available to many. Professors can videotape reviews and then show them in the dormitory at night. By providing special computer terminals in the various libraries, students and faculty members, without previous knowledge of computer language, can seek out references on the basis of a few key words or an author's name. Teaching machines, although still in the developmental stage, also offer considerable potential particularly in those areas where remedial, tutorial, and reinforcement work is desirable.

It is important also to consider the question of use. The almost universal resistance to the use of such a simple device as a slide projector is well known, and the opposition (or inertia) to the use of the computer is even more serious. Administrators also have failed to recognize the possibilities or the importance of technology. It is usually a question of how much will it cost, but almost never a question of providing funds and released time to faculty members who are interested in improving the quality (and perhaps the cost) of education. The central problem is faculty members' understanding of, interest in, and use of technological tools to assist them. The most sophisticated complexes of equipment sit unused and ineffective on many campuses where easy involvement of, and service to, faculty has not been pursued. The use of equipment is, therefore, as important as installing it, and such use must be encouraged and supported for faculty members who have many other commitments to sustain.

## PROPOSALS

### A. Developments of an Educational Resource Center

Certain technological innovations, such as closed-circuit television, computers, and teaching machines, when used properly, can enhance the quality of education at the undergraduate level. Unfortunately, at present at New York University, if a professor wishes to experiment with one of the above he must first become a technological expert and, second, provide his own equipment. There even seem to be instances of discouragement of the use of technological equipment where it already exists. Much more could be done, for example, to foster the use of computers in almost every course that is taught at the University, rather than to limit the use of computers in the few courses that are presently making use of them. As a consequence, educational innovations resulting from the use of available technology have been lacking at the University.

To rectify the above and to ensure that New York University will be prepared to meet the educational problems of the future, we strongly recommend that a committee of experts be appointed to investigate the feasibility and economics of establishing a "university center of educational resources." The purpose of such a center being:

*a*) To encourage maximum effective use and coordination of all University computers and terminals.

*b*) To provide, maintain, and coordinate the use of various technological equipment and facilities, such as closed-circuit television cameras, video-tape recorders, monitors, television studios, etc.

*c*) To provide technical assistance, when needed, to interested faculty members.

*d*) To encourage faculty experimentation in the use of technology in teaching and to provide assistance and advice in evaluating its success.

### B. Library Computer Terminals

With our present computing equipment, it is quite possible to service our libraries with an information retrieval system. This retrieval system would obviously be of great benefit both to graduate students in their research and to undergraduate students seeking source material for papers or appropriate outside reading material to support their courses.

Therefore, we also recommend that a committee be established to determine the feasibility of placing computer terminals in each of the University's main libraries. It is our belief that such terminals would serve several valuable functions. The United States Government now catalogs all published articles by author, title, subject, and key words for computer incorporation. This information is available to the University for a small yearly fee. By storing this information on our *existing* computers and having terminals in the libraries, it would be possible for any student or faculty member to get a complete bibliography on just about any subject in a matter of minutes. By having such a facility available, students would be encouraged to make greater use of our library holdings and would represent a tremendous savings in time on the part of both students and faculty. Furthermore, just about every student going through New York University would have some exposure to the potential value of computers.

### C. A Two-Way Television Set-Up Between University Heights and Washington Square

Our studies to date have indicated that at least a partial solution to the distance problem between the University Heights and Washington Square Centers might be to establish a two-way closed-circuit television network between the two Centers. Meetings involving persons from both University Heights and Washington Square could be held without the waste of valuable time for transit. Furthermore, such a facility would provide a convenient means whereby people at University Heights could give lectures to benefit students at Washington Square, and vice versa. We therefore recommend that the University actively pursue this possibility.

### D. Computer-Assisted Instruction

Computer-assisted instruction (CAI) should be examined in our long-range plans. It offers some promise in solving many of the present and future problems of the University. It is not unreasonable to expect that CAI would be used exclusively in teaching some courses and could also be extremely useful in remedial work, guidance, or needed instruction without the direct use of a faculty or staff member. For example, it could be used to help inform the student about University life during orientation week, to introduce the student to various courses or departmental programs based on the individual's interests, to instruct the student on how the library or computing facilities were to be used, to counsel individual students on the best study methods for him, or it could be used to advise him on what to do if he got in academic trouble. Some of this same subject matter could be offered for community use, possibly even on a paying basis. With the use of CAI a foreign language program (or English) could be quite specialized and could be aimed at individual needs.

### E. Closed-Circuit Television

The Committee also recommends examination of the increased use of closed-circuit television (as well as educational television on a national credit basis). If our main job is to educate, then we should educate people in industry and the community to the financial benefit of the University. (The University of Michigan has a two-way television program established this year to educate various people remotely located.) The University should investigate this possibility further.

In addition, we have a large group of highly talented people at the University. Television tapes of lectures, etc., could be provided to the general public producing revenue and improving the image of New York University as well.

The committee also examined cheaper television systems (approximately $1,000), as well as the establishment of faculty instruction improvement committees which might cooperate with new staff members in all divisions to improve the quality of teaching. Here the inexpensive closed-circuit television systems could be used to tape lectures or homework review sessions of the participants. These tapes could then be evaluated for the group by the faculty instruction improvement committees. In fact, some of these tapes, in time, could turn out to be outstanding and useful works. The committee would like to examine the educational impact of cassette television tape use on learning and library resources as well as on the prevailing modes of undergraduate instruction.

### F. Capital Equipment

The committee is not in a position to make any meaningful recommendations on the purchase of large-scale capital equipment. Not only must we have better knowledge of existing programs and equipment, but we must also have better knowledge from a firsthand faculty point of view. For example, our trip to SUNY (Stony Brook) revealed what could be done when a sizable amount of money is invested in technological equipment for the educational process. It also led to a partial commitment by Stony Brook to allow us to bring students and instructors and use some of this equipment. Such arrangements would allow interested faculty members to make meaningful decisions on equipment and their own interest.

### Members of the Committee

Gary Heberlein
James Ley
Marya Seaton

# APPENDIX V

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## Introduction to Psychology: A New Approach to a Survey Course

### *Commission on Undergraduate Education, Staff Paper, June 1970*

For the past three years, Professor Richard J. Koppenaal has taught an introductory psychology course at Washington Square in a novel fashion. He is assisted by six graduate students who are supervisors over 65 proctors. Each proctor is an upper division psychology major (with at least a "B" average) who receives course credit for being in charge of ten to twelve students throughout the course. The proctor meets with the students twice a week, administers certain tests, and maintains a file on each student.

The course reading list is not the traditional textbook but rather sixteen small units of 30 to 50 pages, each with a supplement of study questions. When a student feels he understands a unit, he asks the proctor to administer to him a mastery test, which consists of five questions taken directly from the study questions. If the student does not score 100 percent, he discusses the material with the proctor and then takes another mastery test on the same unit. He keeps taking mastery tests from the same unit until he scores 100 percent, and until he reaches that score, he cannot go on to another unit. There is no penalty for taking the mastery test any number of times, and since each student proceeds at his own rate, it is expected that many will finish before the end of the semester.

When a student successfully completes the sixteen units, he has earned a minimum grade of "C" for the course. If he wishes a grade higher than "C", the student must attain honor points. The semester is divided into four periods of three or four weeks each. During each of these periods, a different professor delivers a set of lectures. At the conclusion of each series of lectures, there is an honors test based on the lectures and on certain honors readings. Although attending lectures and taking honors tests is completely voluntary, Professor Koppenaal estimates that about 75 percent of the students opt for a higher grade. There is no midterm examination, but there is a final oral examination. Two weeks before the end of the semester a list of twenty questions is distributed to each student. The proctor selects two or three of these twenty questions and administers them orally as a final examination.

At the end of the term, a questionnaire is distributed to evaluate student opinion about the course. The spring 1970 results indicate that 89 percent of the students responding felt that the course required more work than other courses, but 66 percent of the students liked the course very much.

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# STUDENT INSTRUCTIONAL REPORT

(Printed by Permission of Educational Testing Service.
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NAME OF COURSE ______________________

COURSE DEPARTMENT AND CLASS NUMBER ____________

NAME OF INSTRUCTOR ______________________

SECTION NUMBER ____________

This questionnaire gives you an opportunity to express anonymously your perceptions of this course and the way it has been taught. Each of the items in the questionnaire has been included for one or both of the following reasons: first, some items attempt to provide the instructor with useful student feedback; second, other items, more descriptive in nature, may ultimately assist students in their choice of instructors or courses.

It is not possible for a general questionnaire of this kind to elicit information specific to individual instructors or courses. At the end of this student report, therefore, space has been included for responses to additional questions that may be provided by the instructor.

If you have any comments about the Student Instructional Report or suggestions for additional items, please forward them to:

John A. Centra
Research Psychologist
Developmental Research Division
Educational Testing Service

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## SECTION I

Directions: Circle the number that represents the response closest to your opinion. Use any pen or pencil you have handy.

NA (0) = Not Applicable or don't know. The statement does not apply to this course or instructor, or you simply are not able to give a knowledgeable response.

SA (1) = Strongly Agree. You strongly agree with the statement as it applies to this course or instructor.

A (2) = Agree. You agree more than you disagree with the statement as it applies to this course or instructor.

D (3) = Disagree. You disagree more than you agree with the statement as it applies to this course or instructor.

SD (4) = Strongly Disagree. You strongly disagree with the statement as it applies to this course or instructor.

| | NA | SA | A | D | SD |
|---|---|---|---|---|---|
| 1. The instructor's objectives for the course have been made clear.................. | 0 | 1 | 2 | 3 | 4 |
| 2. I was aware of an overall plan or outline for the course......................... | 0 | 1 | 2 | 3 | 4 |
| 3. The instructor stressed what he thought students should learn from the course.... | 0 | 1 | 2 | 3 | 4 |
| 4. The instructor used class time well.............................................. | 0 | 1 | 2 | 3 | 4 |
| 5. The instructor was generally well-prepared for class............................. | 0 | 1 | 2 | 3 | 4 |
| 6. The instructor was readily available for consultation with students after class or during office hours................................................... | 0 | 1 | 2 | 3 | 4 |
| 7. The instructor seemed to know when students didn't understand the material....... | 0 | 1 | 2 | 3 | 4 |
| 8. Lectures were too repetitive of material in the textbook(s)...................... | 0 | 1 | 2 | 3 | 4 |
| 9. The instructor encouraged students to think for themselves....................... | 0 | 1 | 2 | 3 | 4 |
| 10. The instructor seemed genuinely concerned about whether students learned and was actively helpful to students.............................................. | 0 | 1 | 2 | 3 | 4 |
| 11. The instructor used examples or illustrations to help clarify the material....... | 0 | 1 | 2 | 3 | 4 |
| 12. The instructor made helpful comments on papers or exams.......................... | 0 | 1 | 2 | 3 | 4 |
| 13. The instructor raised challenging questions or problems for discussion........... | 0 | 1 | 2 | 3 | 4 |
| 14. The instructor was open to questions or comments from students.................. | 0 | 1 | 2 | 3 | 4 |
| 15. The instructor informed students how they would be evaluated in the course....... | 0 | 1 | 2 | 3 | 4 |
| 16. The instructor summarized or emphasized major points of lectures or discussions.. | 0 | 1 | 2 | 3 | 4 |
| 17. The catalog accurately describes the contents and method of this course.......... | 0 | 1 | 2 | 3 | 4 |
| 18. My interest in the subject area has been stimulated by this course............... | 0 | 1 | 2 | 3 | 4 |
| 19. I have been challenged by this course............................................ | 0 | 1 | 2 | 3 | 4 |
| Course Laboratories -- Respond if applicable. | | | | | |
| 20. There was ample opportunity to ask questions and get help in the labs............ | 0 | 1 | 2 | 3 | 4 |
| 21. The labs stimulated my learning and interest..................................... | 0 | 1 | 2 | 3 | 4 |

SECTION II. Overall Ratings.

Directions: The responses to the items in this section are on a five point scale in which::

1 = Excellent
2 = Good
3 = Satisfactory
4 = Fair
5 = Poor
0 = Question not applicable: don't know, or there were none.

Circle one response number for each question.

| | Question not applicable | Excellent | Good | Satis-factory | Fair | Poor |
|---|---|---|---|---|---|---|
| 22. Overall, I would rate the textbook(s)....... | 0 | 1 | 2 | 3 | 4 | 5 |
| 23. Overall, I would rate the supplementary readings................................ | 0 | 1 | 2 | 3 | 4 | 5 |
| 24. Overall, I would rate the exams............ | 0 | 1 | 2 | 3 | 4 | 5 |
| 25. I would rate the general quality of the lectures................................ | 0 | 1 | 2 | 3 | 4 | 5 |
| 26. I would rate the overall value of class discussions.............................. | 0 | 1 | 2 | 3 | 4 | 5 |
| 27. Overall, I would rate the laboratories...... | 0 | 1 | 2 | 3 | 4 | 5 |

28. Compared to other instructors you have had (secondary school and college), how effective has the instructor been in this course? (Circle one response number.)

| One of the most effective (among the top 10%) | More effective than most (among the top 30%) | About average | Not as effective as most (in the lowest 30%) | One of the least effective (in the lowest 10%) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

SECTION III.

Directions: Circle one response number for each question.

29. For my preparation and ability, the level of difficulty of this course was:

1 Very elementary
2 Somewhat elementary
3 About right
4 Somewhat difficult
5 Very difficult

30. The work load for this course in relation to other courses of equal credit was:

1 Much lighter
2 Lighter
3 Average
4 Heavier
5 Much heavier

31. For me, the pace at which the instructor covered the material during the term was:

1 Very slow
2 Somewhat slow
3 Just about right
4 Somewhat fast
5 Very fast

32. The major method of conducting the class was:

1 Lecture, with little or no discussion
2 Lecture and discussion combined
3 Discussion mainly
4 Lecture and laboratory
5 Laboratory
6 Other____________________________

33. Was the class size satisfactory for the method(s) of conducting the class?
   1 Yes, most of the time
   2 No, class was too large
   3 No, class was too small
   4 It didn't make any difference one way or the other

34. Which one of the following best describes this course for you?
   1 Major requirement or elective within major field
   2 Minor requirement or required elective outside major field
   3 College requirement but not part of my major or minor field
   4 Elective not required in any way
   5 Other

35. Which one of the following was your most important reason for selecting this course?
   1 Friend(s) recommended it
   2 Faculty advisor's recommendation
   3 Teacher's excellent reputation
   4 Thought I could make a good grade
   5 Could use pass/no credit option
   6 It was required
   7 Subject was of interest
   8 Other________________________________

36. Your cumulative grade-point average:
   1 3.50-4.00
   2 3.00-3.49
   3 2.50-2.99
   4 2.00-2.49
   5 1.50-1.99
   6 1.00-1.49
   7 Less than 1.00
   8 None yet—freshmen or transfer

37. Grade you expect to receive in this course:
   1 "A"
   2 "B"
   3 "C"
   4 "D"
   5 Fail
   6 P—Pass
   7 N—No credit

38. What is your class level?
   1 Freshman
   2 Sophomore
   3 Junior
   4 Senior
   5 Graduate

39. Sex: (for research purposes)
   1 Female
   2 Male

40. Approximately how long did it take you to answer this questionnaire up to this point?
   1 Less than 10 minutes
   2 Between 10 and 15 minutes
   3 Between 15 and 20 minutes
   4 Over 20 minutes

SECTION IV. Items 41-50

Circle one response for each question.

If the instructor provided supplementary questions and response options, use this section for responding.

| | Not applicable, or don't know | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 41. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 42. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 43. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 44. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 45. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 46. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 47. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 48. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 49. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 50. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

SECTION V.

Students' Comments Section (please give to the instructor)

If you would like to make additional comments about the course or instruction, use a separate sheet of paper. You might elaborate on the particular aspects you liked most as well as those you liked least. Also, how can the course or the way it was taught be improved?

Printed responses may help maintain anonymity.

## College Teacher Training

*by Marvin Fortgang, Commission on Undergraduate Education, Staff Paper, October 1970*

While in the past very few college teachers have had any specific training in the skill of teaching, there is presently a good deal of discussion (but not much action) of the need to train college teachers in that area. The programs being considered to achieve that purpose may be divided between those that maintain that this training should be received before a college teacher has received his Ph.D. or other terminal degree, and those that would establish training programs at the level of a teacher's first full-time appointment — which usually succeeds his receipt of his terminal degree.

### Pre-Terminal Degree Teacher Training Programs

The programs that would introduce teacher training as part of a student's graduate studies can again be divided between those that would keep this training within the structure of the traditional Ph.D. degree and those that conceive of new "teaching" graduate degrees. The latter being the more unorthodox we will consider them first.

The Ph.D. degree has been under heavy attack over the past decade as being too research oriented and inadequate for the preparation of classroom teachers. It is not our role here to evaluate the validity of this argument but simply to point out that the Doctor of Arts degree is seen by those who accept this contention as a rational alternative to the Ph.D.

Basically the A.D. degree differs from the Ph.D. in that it requires an abbreviated dissertation and a substantially greater emphasis on teaching. According to guidelines for the A.D. degree prepared by the Committee of Graduate Studies of the American Association of State Colleges and Universities, this teacher training should consist of "appropriate experiences, courses, or seminars in college teaching, in problems of higher education, and in contemporary issues." In addition the guidelines call for the student to be provided with college teaching experience under the direction of a senior professor. The dissertation required in the A.D. program usually focuses on the teaching of the subject as well as on the contribution of original knowledge.

As of last April only Carnegie-Mellon University offered this degree in English, history, mathematics, music, and the visual arts. It is being considered by Illinois, Wisconsin, and the University of Washington. The Graduate Council at New York University has rejected a plan to institute this degree as has the Coordinating Council for Higher Education of the State of California.

In addition to the proposal for a special doctoral degree for college teaching, several colleges and universities offer intermediate degrees specially designed to train college teachers. Of these, one of the most respected is the Master of Philosophy degree offered by the University of Toronto and the University of Waterloo. It consists of a more general programming of liberal arts courses than that required for the standard master's degree and requires a major research paper or essay — but again, one that need not consist of an original contribution of knowledge. Most of those who have received this degree have gone on to teach in Canadian universities while a few have gone on to get a Ph.D. degree. Yale and Rutgers are examples of schools that offer the Master of Philosophy degree as an upgraded master's degree and not one specifically designed to prepare college teachers.

Other intermediate degrees designed to prepare college teachers are the Master of Arts in College Teaching and Diplomate in College Teaching offered by the University of Tennessee and the University of Miami (Florida), respectively. These degrees typically require that the degree candidate devote most of his hours to the academic disciplines with the remainder of his time to include experience in the classroom as a teaching assistant and professional education courses on such subjects as the nature of the college student and the nature of collegiate instruction. Many schools offer the degree (or a nondegree certificate program) in Specialist in Education, among them Indiana University, University of Michigan, and the University of Georgia. This program is usually entered into after the student has received his master's degree, and the schools vary in whether they direct their program toward producing college administrators or classroom teachers. (For more information on new "teaching degrees" see Stephen H. Spurr, *Academic Degree Structures: Innovative Approaches*. New York: McGraw-Hill Book Company, 1970.)

Yet for all the present activity in the field of special "teaching degrees" Jencks and Riesman in *The Academic Revolution* are typical of a large body of opinion that regards these types of proposals as basically "self-defeating." They contend that no progress will be made as long as teaching is considered a soft option "for those who cannot make it in research." The authors of *The Academic Revolution* believe that a teacher needs to know as much as his research colleague, if not more. Though this point is certainly open to debate it is quite certain that the more respected colleges and universities are considerably more likely to prefer faculty members with the traditional degrees than those with the newly created teaching degrees.

With these two points in mind, we now turn to teacher training programs that are a part of the traditional Ph.D. program. Teaching assistantships have long been a part of many a Ph.D. program, but there is a considerable body of opinion that these teaching assistantship programs do little to train college teachers. It is felt that most of these programs lack any sustained direction or supervision by senior faculty members and serve more to exploit graduate students than to train them.

Recognizing these defects, the Danforth Foundation has awarded grants to several universities to modify their assistantship programs. The History Department of Washington University, St. Louis, has a program with the following elements:

1. Toward the close of the first year of graduate study students visit discussion sections of history courses taught by members of the department. These brief visits are followed by discussions of problems in teaching that have been raised by the visits. In the summer following

the first year of study, the students prepare for teaching assignments by spending full time in reading. Toward the close of the summer they meet with members of the history faculty in a two-day conference on teaching and graduate preparation.

2. During the second and third years the graduate students teach under supervision in two history courses. In addition to accepting a considerable responsibility for the discussion sections of these courses, the graduate students lecture two to four times a year. In one course they also supervise honors thesis and, in addition, assist in preparing the examinations offered in the course.

3. All members of the History Department faculty participate in supervising the work of the teaching assistants. (See W. Max Wise, "Who Teaches the Teachers," *Improving College Training,* Calvin B. T. Lee, ed. Washington: American Council on Education, 1967.)

In summary, this program puts primary reliance on open student observation of classes, consultation with senior faculty, and summer reading in preparation for teaching assignments as the principal methods of training future college teachers.

In addition to upgrading the quality of already existent teaching assistantship programs there are also proposals to establish new teaching internship courses for those pursuing a Ph.D. Professor Frederick Redefer's plan is an example of these quite comprehensive programs. In addition to having the graduate student observe and participate in classroom teaching under the supervision of a senior professor, the program calls for him to participate in a Graduate Seminar in College Teaching. This seminar would include "a team of professors concerned with the improvement of college teaching in such fields as psychology, psychiatry, administration, higher education, and at times various subject disciplines." In the seminar "the elements of what is good college teaching will be stressed; and understanding of the American college and certain historic experiments in higher education will be presented." Individual video-tapes of students' teaching would be used for self-evaluation and group consideration. In the second semester of its presentation the seminar would focus directly on college teaching and curriculum innovation in the intern's particular field of scholarship.

## Post-Terminal Degree Teacher Training

In considering the various options available in teacher training Jencks and Riesman come out strongly in favor of these programs after the completion of the doctorate and at the institution at which the new college teacher assumes his first full-time teaching assignment. Since this puts the responsibility for teacher training on undergraduate institutions, it should be of particular interest to the Commission.

In general, teacher training at this level consists of an orientation period for new faculty members and continuous supportive activities designed to aid the new teacher in his first classroom experience. Almost a quasi-internship, the program would entail less full-time teaching responsibility for the new teacher and more time devoted to receiving the aid and guidance of senior faculty members who are recognized as superior teachers. Jencks and Riesman see such programs as the pedagogic counterpart of the postdoctoral fellowship for a researcher and postulate that the more "student-oriented" colleges would begin to make completion of such an internship a prerequisite to permanent employment as a teacher.

It will be seen that no matter at what level they are conducted, teacher training programs consist of either or both of two basic elements — *supervised* classroom experience and seminars or classes on the nature of the university and college teaching. It should also be remembered that for all the discussion of college teacher training, at present only a tiny minority of college teachers enter into teaching with any training whatsoever in that skill.